RAILWAY AGE

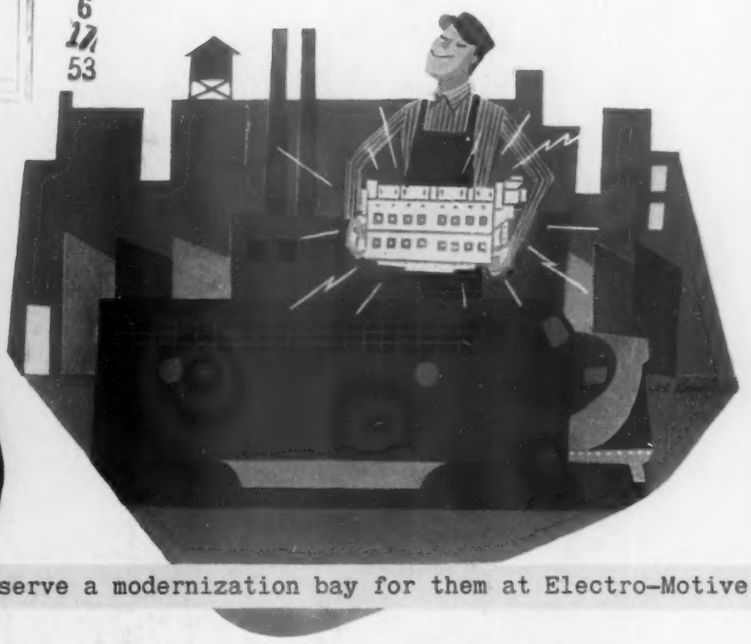
THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

FEBRUARY 16, 1953

3
Copy.....

6
17
53

If your old Diesel locomotives are work-weary,



reserve a modernization bay for them at Electro-Motive.

We'll quickly rebuild them to latest, high-capacity standards

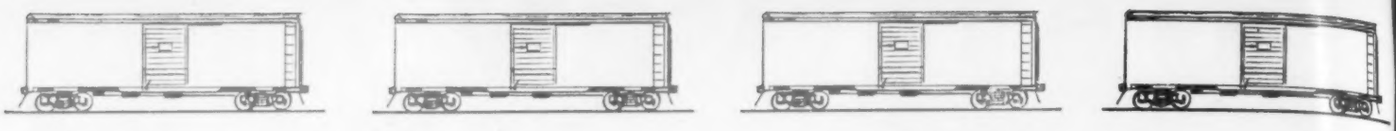
and back them with a new locomotive performance guarantee.

ELECTRO-MOTIVE "UNIT EXCHANGE" GIVES YOU BETTER REBUILDS--FASTER--AT LOWER COST

GENERAL MOTORS LOCOMOTIVES

ELECTRO-MOTIVE DIVISION GENERAL MOTORS

La Grange, Illinois • Home of the Diesel Locomotive • In Canada: General Motors Diesel, Ltd., London, Ontario



3 OUT OF 4

FRATE* CARS

BOUGHT IN 1952 ARE

UNIT TRUCK CARS

* FRATE is the simplified and approved modern spelling of FREIGHT. The functional simplicity of UNIT TRUCK is a **must** for modern frate cars — no matter how you spell it.

They Use Mayari R to Add Corrosion-Resistance and Increase the Life of Coal Hopper Cars

The hopper car shown above is one of a group of 200 that has been in use for several years on a leading coal-hauling railroad. These cars are built principally of Mayari R.

The railroad specified this low-alloy, high-strength steel because it was seriously concerned with the rising cost of corrosion damage on cars built of plain carbon steel.

The results with Mayari R were all they expected, and more. Damage has been reduced substantially, because Mayari R has from 5 to 6 times as much resistance to atmospheric corrosion as carbon steel of equal thickness.

And they gained another advantage in the bargain. Because of Mayari R's higher strength, they were able to reduce the dead-weight of each car by nearly one ton without sacrificing the strength of the members.

This is typical of the experience of many progressive roads who have turned to the use of Mayari R. We will be glad to cite cases and explain how other lines have benefited by using this grade of steel.

Ask for Mayari R Catalog 259; it will give you plenty of ideas and serve as a handy reference.

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

★ BETHLEHEM STEEL ★

Mayari R *makes it lighter... stronger... longer lasting*

You can run a faster schedule with this high-speed brake

THE Westinghouse HSC electro-pneumatic passenger car brake provides the maximum flexibility with respect to brake control. With this quicker brake response, you can cut valuable minutes from your running time, and assure smooth train operation.

The electro-pneumatic operation of the HSC provides *simultaneous* braking of every car. You do not have to apply brakes early to compensate for the time required by serial brake application. The same applies on brake release, all cars release at the same time.

The HSC speed governor control automatically adjusts maximum braking force to the speed of the car. At high speeds, high braking force is developed; as speed decreases, braking force decreases to give uniform deceleration.

For complete protection against wheel slide, the Westinghouse Air Brake "AP" Decelostat® Controller reduces brake cylinder pressure momentarily when wheel slide is imminent, then quickly restores the pressure when the wheel regains train speed.

Westinghouse Air Brake Company

AIR BRAKE DIVISION

WILMERDING, PA.

Vol. 134, No. 7 February 16, 1953

RAILWAY AGE

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.

Simmons-Boardman Publishing Corporation: James G. Lyne, President. Samuel O. Dunn, Chairman Emeritus. J. S. Crane, Vice-President and Secretary. C. Miles Burpee, Harry H. Melville, C. W. Merriken, John R. Thompson, William H. Schmidt, Jr., J. S. Vreeland, Fred W. Smith, Vice-Presidents. Robert G. Lewis, Assistant to President. Arthur J. McGinnis, Treasurer. Ralph E. Westerman, Assistant Treasurer.

EDITOR ..... James G. Lyne
EDITORIAL CONSULTANT ..... Samuel O. Dunn
EXECUTIVE EDITOR ..... William H. Schmidt, Jr.
MANAGING EDITOR ..... C. B. Tavenner
NEWS & FINANCIAL EDITOR...Gardner C. Hudson
WASHINGTON OFFICE ...
Walter J. Taft Joe W. Kizzia
TRAFFIC & TRANSPORTATION DEPARTMENT ...
Robert G. Lewis John W. Milliken
John S. Gallagher, Jr.
MECHANICAL DEPARTMENT ...
C. B. Peck E. L. Woodward
H. C. Wilcox C. L. Combes G. J. Weihofen
ELECTRICAL DEPARTMENT ..... Alfred G. Oehler
ENGINEERING DEPARTMENT ...
M. H. Dick Henry E. Michael
Radford E. Dove Ralph M. Schmidl
PURCHASES & EQUIPMENT ..... Fred C. Miles
SIGNALING & COMMUNICATIONS DEPARTMENT...
John H. Dunn Robert W. McKnight
WESTERN NEWS DEPARTMENT...Arthur M. Cox, Jr.
ASSOCIATE EDITOR ..... Charles Layng
LIBRARIAN ..... Edith C. Stone
EDITORIAL ASSISTANT ..... Frederick E. Colwill

Published weekly by the Simmons-Boardman Publishing Corporation at Orange, Conn., and entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price to railroad employees only in U. S., U. S. possessions, Canada and Mexico, $4 one year, $6 two years, payable in advance and postage free. Subscription price to railroad employees elsewhere in the Western Hemisphere, $10 a year; in other countries, $15 a year—two-year subscriptions double the one-year rate. Single copies 50¢, except special issues $1. Address Robert G. Lewis, Assistant to President, 30 Church Street, New York 7.

IN THIS ISSUE

EDITORIAL COMMENT:

Common Carriers Silent under Discriminatory Treatment 37
Railroads Unjustly Blamed 38

FEATURE ARTICLES:

How Gas Turbines Perform on the Union Pacific 39
This Swing-Span Bridge Converted to Fixed Span 44
Three-Way Benefits Expected from Station Changes at Camden, N.J. ... 47
155-Mile C.T.C. Project 50
How REA Finds Executive Talent 52

NEWS FEATURES:

1952's Net Income Was $827 Million 12
1952—The Railroads' Safest Year 15
Tentative A. R. E. A. Convention Program 17
Two Firms Join to Make Freight Roller Bearings 18

DEPARTMENTS:

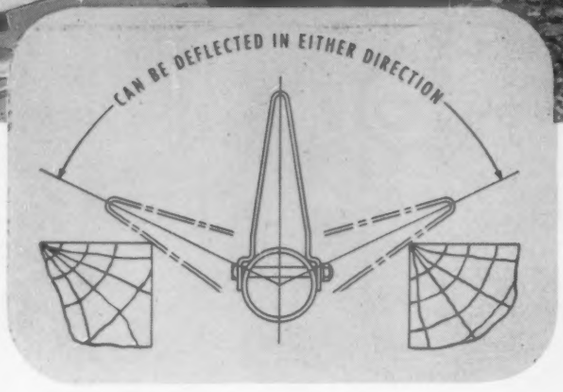
News of the Railroad World .. 11
Organizations 17
Overseas 17
Supply Trade 18
Equipment and Supplies 18
New and Improved Products .. 33
Benchmarks and Yardsticks .. 35
Financial 54
Railway Officers 55
Freight Operating Statistics . 68
Current Publications 70

Editorial and Executive Offices at 30 Church Street, New York 7, N. Y., and 79 West Monroe Street, Chicago 3, Ill. Branch Offices: 1081 National Press Building, Washington 4, D. C.—Terminal Tower, Cleveland 13, Ohio.—Terminal Sales Building, Portland 5, Ore.—1127 Wilshire Boulevard, Los Angeles 17, Cal.—244 California Street, San Francisco 11, Cal.—2909 Maple Avenue, Dallas 4, Tex.

Published by SIMMONS-BOARDMAN PUBLISHING CORPORATION, New York 7

Railway Age Railway Locomotives and Cars Railway Track and Structures
Railway Signaling & Communications Railway Freight Traffic Car Builders' Cyclopedia
Railway Engineering & Maintenance Cyclopedia Locomotive Cyclopedia American Builder
Marine Engineering & Shipping Review Marine Catalog & Directory
Books covering transportation and building

Railway Age is a member of Associated Business Publications (A. B. P.) and Audit Bureau of Circulation (A. B. C.) and is indexed by the Industrial Arts Index and by the Engineering Index Service. Printed in U. S. A.



"UNION" SRD-5 SELF-RESTORING

DRAGGING EQUIPMENT DETECTOR

With "Union" Self-Restoring Dragging Equipment Detectors on guard at approaches to interlockings, tunnels, etc., you receive continuous, automatic protection at such locations without the need for replacing the detecting elements after each operation.

When the detector plates are deflected in *either* direction by dragging equipment, the circuit controller sets the wayside signal ahead to warn the engineman. And since it restores itself automatically and immediately after each operation, the "Union" Self-Restoring Dragging Equipment Detector is always ready to police following trains.

The restoring mechanism of the SRD-5 is located inside the operating shaft and all parts . . . except for the easily removable detector plates . . . are beneath the tops of the ties. Moreover, it is only necessary to remove the outside plates to permit use of the usual ballast cleaning machines. Consequently, interference to such equipment is minimized.

Ask our nearest district office for full particulars.

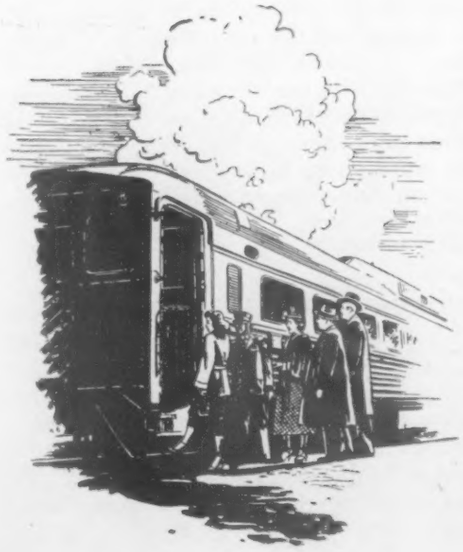
UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE CO.
SWISSVALE, PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, twelve months	
1952	$10,581,418,145
1951	10,391,883,739
Operating expenses, twelve months	
1952	$ 8,053,003,585
1951	8,043,948,634
Taxes, twelve months	
1952	$ 1,261,741,356
1951	1,203,399,838
Net railway operating income, twelve months	
1952	$ 1,078,454,945
1951	941,124,293
Net income, estimated, twelve months	
1952	$ 826,874,000
1951	690,568,000
Average price railroad stocks	
February 10, 1953	66.99
February 11, 1952	56.80
Car loadings, revenue freight	
Five weeks, 1953	3,352,053
Five weeks, 1952	3,561,719
Average daily freight car surplus	
February 7, 1953	67,070
February 9, 1952	8,683
Average daily freight car shortage	
February 7, 1953	2,009
February 9, 1952	4,400
Freight cars delivered	
January 1953	7,981
January 1952	8,642
Freight cars on order	
February 1, 1953	77,414
February 1, 1952	120,251
Freight cars held for repairs	
January 1, 1953	93,027
January 1, 1952	95,425
Average number of railroad employees	
Mid-December 1952	1,223,163
Mid-December 1951	1,243,095



In This Issue . . .

HAS MAINTENANCE been much of a headache? Has life of parts been generally good? Are special servicing facilities required? Do hot exhaust gases cause any difficulty? These questions—and 46 more—concerning actual revenue-service performance of the Union Pacific's gas-turbine locomotives, are asked—and answered—in this issue's lead-off article (page 39). The answers show clearly why the UP has recently ordered 15 more engines of the same type, despite some frankly admitted limitations on their use; the answers also provide at least a starting point for appraising possible use of gas turbines under other circumstances.

WHAT'S COMING IN *RAILWAY AGE?* . . . Newsier—faster reading—high-impact reporting of news and technical developments in every railroad department . . . More particulars in next week's issue.

FINDING FUTURE EXECUTIVES is one of the biggest problems confronting the railroads (or any other industry). How the Railway Express Agency is tackling the problem, through a supervisory training program, is outlined on pages 52-53.

ALL COMMON CARRIERS—whether rail, highway or air—have a lot of mutual problems, e. g., discriminatory regulation and taxation as compared to that imposed on contract or private carriers. Why, therefore, asks our editorial comment page, wouldn't it be a good idea for common carriers "to set aside a small part of the time and energy they now spend in scrapping among themselves to do a little general education on the peculiar public interest being served by the common carrier function."

In Washington . . .

THAT 1952 WAS THE RAILROADS' SAFEST YEAR — a fact unofficially known and announced some weeks ago (*Railway Age*, January 12, page 11) has now been authenticated by release of December and 12-month accident figures by the I.C.C.'s Bureau of Transport Economics and Statistics (see page 15, this issue). The air lines, too, are currently bragging—and with rather more fanfare than the railroads—that 1952 was also their safest year. Nobody likes accidents,

WEEK AT A GLANCE

so it's quite proper to say: Congratulations all around! But does anyone mind if we succumb to the temptation to point out that the railroads achieved their record without benefit of government provided airports, airways, or navigational aids — and achieved it in all sorts of weather, including some when planes stayed sensibly on the ground?

FINAL FINANCIAL RESULTS for 1952, as reported in the news pages, indicate net railway operating income of $1,078 million, as compared with $941 million in 1951; net income after charges of $827 million, against $691 million. Rate of return on property investment was 4.11 per cent—better than in most years, but still only two-thirds of what the industry should have to continue and expand its improvement program, meet the needs of national defense, and make its securities attractive to investors.

. . . And Elsewhere

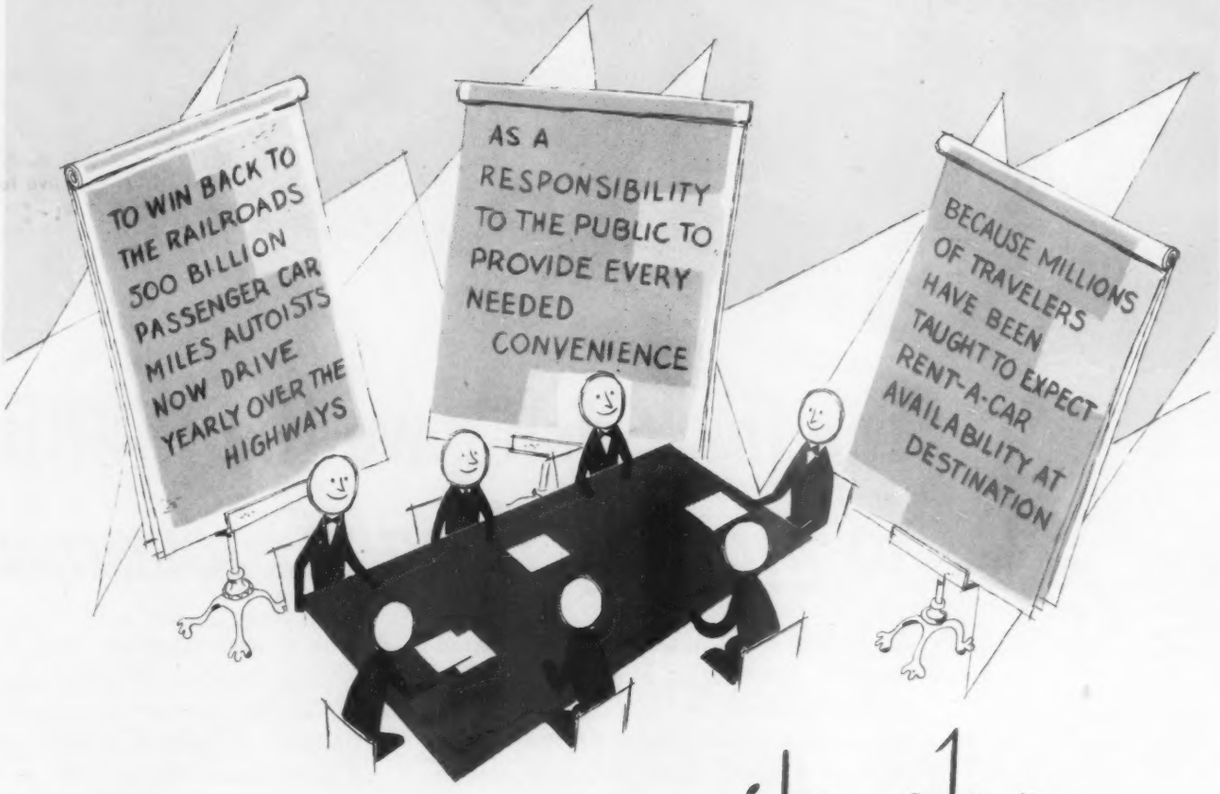
AT LEAST THREE ALL-TIME RECORDS were established by domestic iron and steel companies in 1952. The companies last year spent a record $1,170,000,000 to expand and improve their plants, the American Iron & Steel Institute has revealed. Combined annual steel capacity of the companies made the greatest yearly increase in history, rising nearly nine million net tons to a new high level—117.5 million tons of ingots and steel for castings. During the seven years 1946-52 over $4.6 billion has been invested by the companies for new equipment and construction, and in the same period total U. S. steel capacity has increased by more than 25.6 million tons. Present plans, the institute said, call for expenditure of about an additional $1,000,000,000 this year, which will result in a further increase in steel capacity of approximately 4,000,000 tons. Capacity, it added, is rising toward a yearly figure expected to exceed 123,000,000 tons.

A TON-MILE TAX on heavy motor trucks and commercial vehicles is proposed in a bill introduced in the Connecticut legislature. The bill, it is said, would produce more than $6 million a year in added revenue, to be divided one-third to the state for highway purposes, one-third to the state police department "for extra services required in connection with use of large trucks," and one-third to Connecticut cities and towns for repair of their local roads. Despite the anticipated revenue, proponents of the bill point out that it would cost a 30,000-lb. truck, traveling 118 miles across the state, only $1.18. That figure would seem to speak volumes about (a) the amount of heavy trucking in Connecticut, and (b) the comparatively minor impact of ton-mile taxes on the trucking industry, despite its almost hysterical opposition to such taxes. Ton-mile or weight-distance taxes are also reported to be under consideration in a number of other states—among them California, Montana, New Jersey and Ohio.

NEW JERSEY'S veteran Republican Congressman, Charles A. Wolverton, is serving as chairman of the House Interstate and Foreign Commerce Committee in the present Congress. In that position, he will play a key role in Congressional consideration of legislation affecting transportation.

TO MAKE THE RAILROADS' GOOD SAFETY RECORD still better, the Pennsylvania is installing a protective deevice to keep air brake angle cocks locked in an open position on certain passenger cars. The action results from a feeling, generated by the recent accident at Washington Union Station, that "location of angle cocks on some cars equipped with a particular type of coupler might be such that action en route would change the position of the angle cock." The device will be applied to all such cars — relatively few in number — operated on the PRR, whether owned by it or by other railroads.

Why alert rail management so aggressively promotes the HERTZ RAIL-AUTO PLAN


TO WIN BACK TO THE RAILROADS 500 BILLION PASSENGER CAR MILES AUTOISTS NOW DRIVE YEARLY OVER THE HIGHWAYS
AS A RESPONSIBILITY TO THE PUBLIC TO PROVIDE EVERY NEEDED CONVENIENCE
BECAUSE MILLIONS OF TRAVELERS HAVE BEEN TAUGHT TO EXPECT RENT-A-CAR AVAILABILITY AT DESTINATION

is your railroad doing its share?

What does it mean that at least 657 million miles were traveled on trains in 1952 by men and women who rented cars to drive at their destinations? Fifteen years ago there weren't even 5% of that figure! Much of this developed during the past five years. Doesn't it mean just this: (1) It means that the Hertz-originated Rail-Auto Plan *does work!* (2) That Hertz' efforts launched on a grand scale in 1947, and the fine cooperation of most of the railroads, in advertising and promoting the Rail-Auto Plan are *paying off!* (3) That in 1953 millions more men and women who now drive city-to-city in their own cars . . . tiring, time-consuming, often hazardous miles . . . can be expected to change back to the trains *because they can rent cars conveniently wherever they're going?*

Millions of travelers already reclaimed mean a lot of reclaimed revenues, but remember city-to-city autoists are actually piling up not just millions, but 500 *billion* passenger car miles a year! This fight has just begun against the railroads' biggest and fastest-growing competitor. Isn't it fair to ask whether your railroad is doing all it can and should do to get traffic back off the highways and onto the trains?

Do you mention car rental availability in your own advertising, timetables and other literature? Do you encourage your ticket agents to profit with the 10% commission any Hertz station will pay them for car rental business, by asking every customer . . . "Shall I reserve a car for you at your destination?" If not, write us for convenient reservation forms, and worthwhile information. No obligation. Hertz, world's largest and finest rent-a-car organization, with more than 700 stations in over 500 cities throughout the United States, Canada, Alaska, Hawaii, Cuba, Great Britain, Mexico and Switzerland will cooperate with you in every possible way.

Dept. D23, 218 S. Wabash Avenue,
Chicago 4, Illinois; phone: WEbster 9-5165

HERTZ *Driv-Ur-Self* SYSTEM

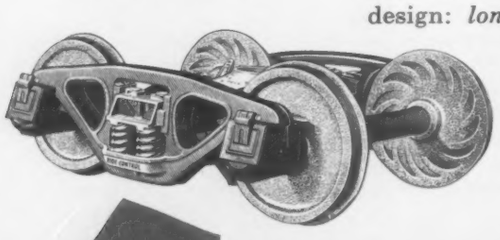
The truck that gave the HIGHBALL to *modern* freight movement!

A revolution in freight handling started in 1944. Practically overnight, freight cars were built that rode safely and smoothly, at practically any speed, empty or fully loaded. *Cars that gave greater protection to lading and carried it to destination faster.*

It seems hard to believe now that all these advantages were gained so quickly by just one new concept of railroad truck design: *long spring travel with constant friction control.* And yet that concept—developed by ASF and introduced in the ASF Ride-Control Truck—gave the "Highball" to *modern* freight movement!

The strongest testimonials to the performance of ASF Ride-Control Trucks come from the railroads themselves. Today, over 300,000 car sets of these trucks have been ordered—and *re-ordered*—by 174 railroads and car owners. More are specified than all other trucks combined!

More users buy more ASF Ride-Control trucks than all other trucks combined!



For high speeds, smooth riding, low maintenance . . . Specify ASF Ride-Control Trucks when you order new cars. Let a qualified ASF Representative show you how this modern truck can reduce your costs per car mile. Write us today.

ASF

American Steel Foundries

410 North Michigan Ave., Chicago 11, Ill.

Canadian Sales: International Equipment Co., Ltd., Montreal, Quebec

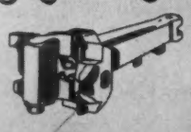
Look for this MINT ⬡ MARK on the running gear you specify

Cast Steel Brake Beams

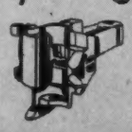
Ride-Control Trucks

Ride-Control Packages

Simplex Snubbers



Type E Couplers



Type F Couplers

Tightlock Couplers

Fiscal 1952 Reviewed by Bureau of Safety

S. N. Mills, director of the Bureau of Safety of the Interstate Commerce Commission, has submitted his annual report to the commission. The report covers bureau activities for the fiscal year ended June 30, 1952.

Contained in the report are figures showing results from inspection of safety appliance equipment on railroads. The report also has information concerning hours of service of railroad employees; installation and inspection of signal systems, interlocking and automatic train-stop and train-control devices; investigation of accidents; prosecutions for violations of railroad safety laws, and other activities of the bureau.

During the year under review, 1,185,675 freight cars, 29,079 passenger-train cars and 13,184 locomotives were inspected, compared with 1,156,408 freight cars, 31,584 passenger-train cars and 12,573 locomotives in fiscal 1951. Of the 1952 total, 3.67 per cent of the freight cars, 3.76 per cent of the passenger-train cars and 2.5 per cent of the locomotives were found to be defective, compared with the respective 1951 figures of 3.62 per cent, 3.57 per cent and 3.22 per cent.

Air brakes tested on 2,661 trains (consisting of 122,214 cars) prepared for departure from terminals were found operative on 122,060 cars, or 99 per cent. This percentage was attained, however, after 2,744 cars having defective brakes were set out, and repairs made to brakes on 2,828 cars remaining in the trains.

Similar tests on 1,368 trains arriving at terminals with 78,553 cars showed that air brakes were operative on 76,986 cars, or 98 per cent. Approximately 1.15 cars per train were not controlled by power brakes.

According to the report, 691 reporting railroads and private car lines, which collectively own 2,199,000 freight cars, have equipped 2,086,846 such cars with power brakes which comply with specifications set out in the commission's order of September 21, 1945. That order has been amended to grant more time for compliance.

Under the most recent amendment, of November 18, 1952, all except tank cars must be equipped by June 30, 1953. Tank cars have until October 1, 1953 (*Railway Age*, December 1, 1952, page 118).

As of April 30, 1952, 95.3 per cent of railroad-owned freight cars were equipped with approved power brakes, and 91.6 per cent of cars owned by private car lines were so equipped.

In the matter of geared hand brakes, the report noted that certificates of approval issued by the Association of American Railroads are currently in effect for 29 types—17 vertical wheel types, nine horizontal wheel types and three lever types.

During fiscal 1952, 168 of 647 railroads filing hours-of-service reports reported 8,592 instances of all classes of excess service, a decrease of 927 compared with the previous year. The 1952 figure included 2,245 instances of excess service by train-service employees subject to the 16-hr. provision of the law, and 6,347 instances of excess service by operators and other employees subject to the 9-hr. and 13-hr. provisions of the law.

Landslides, high water, fire and adverse weather conditions; wrecking and relief service, and collisions and derailments were principal causes of 1,979 instances in which train-service employees remained on duty longer than 16 consecutive hours. Sickness, death and personal injury accounted for 4,546 of the 6,347 instances of excess service among employees subject to the 9-hr. and 13-hr. provisions of the law.

During the year, 145 cases of violation of safety-appliance laws, comprising 472 counts, and seven cases of violation of hours-of-service law, comprising 26 counts, were transmitted to United States attorneys for prosecution. Also handed over to U.S. attorneys were six cases of violation of the signal inspection law, comprising 30 counts, and one case of violation of the accident reports law, comprising 20 counts.

Signals and Communications

As of January 1, 1952, there were 108,300.6 miles of road (140,522.8 miles of track) equipped with block-signal systems, including automatic block signals on 78,112.4 miles of road (109,056.5 miles of track). On the same date, there were 4,339 interlockings in operation and 12,630.8 miles of road (23,723.1 miles of track) equipped with automatic train-stop, train-control and cab-signal devices.

According to reports submitted by the carriers, there were 95 train communication systems in service on lines of 48 different railroads as of January 1, 1952, midway of the fiscal year. Included in these systems were nine installations providing radio telephone service for passengers through telephone company mobile radio facilities.

There were also 178 installations in

service in yards and terminals on 63 railroads, with 162 of such installations providing communication between fixed stations and switching engines. Sixteen of the installations provide communication between portable pack radios, between fixed stations and portable pack radios, and between fixed stations and mobile units other than engines used in yard operations.

Of the 39 collisions investigated by the Bureau of Safety, 23 occurred on lines operated by the block system, 11 on lines operated by the timetable and train-order system, and five in locations where yard or miscellaneous operating rules were in effect.

The collisions resulted in death of 90 persons and injury to 1,041. The bureau also investigated 20 derailments, which altogether resulted in deaths of 19 persons and injury to 312. In 10 accident reports, the bureau recommended in six cases, "That carrier provide adequate protection for movement of track motorcars."

During the calendar year 1951 there were 3,995 accidents at highway grade crossings, which resulted in death of 1,578 persons and injury of 4,335. There were 61 derailments of trains as a result of collisions with automobiles, resulting in death of 23 persons and injury of 95. Casualties to persons on trains from derailments and other train accidents at highway grade crossings consisted of two killed and 95 injured.

1952's Net Income Was $827 Million

Class I railroads in 1952 had an estimated net income, after interest and rentals, of $826,874,000, according to the Bureau of Railway Economics of the Association of American Railroads. That compared with a 1951 net income of $690,568,000.

Last year's net railway operating income, before interest and rentals, was $1,078,454,945, compared with $941,124,293 in 1951. The former figure represented a return of 4.11 per cent on net property investment, while the 1951 result reflected a return of 3.69 per cent, the A.A.R. statement said.

Estimated results for December showed net income of $143,450,000, compared with $121,614,000 in December 1951. December net railway operating income was $109,602,097, compared with $108,692,303.

The 12-months' figures showed that last year's gross was $10,581,418,145, an increase of 1.8 per cent above 1951's gross of $10,391,883,739. Meanwhile, operating expenses were only 0.1 per cent, having totaled $8,053,003,585, compared to $8,043,948,634.

Fourteen Class I roads failed to earn interest and rentals in 1952, the A.A.R. also reported.

CLASS I RAILROADS—UNITED STATES

	Twelve Months Ended December 31	
Total operating revenues	$10,581,418,145	$10,391,883,739
Total operating expenses	8,053,003,585	8,043,948,634
Operating ratio—per cent	76.11	77.41
Taxes	1,261,741,356	1,203,399,838
Net railway operating income (Earnings before charges)	1,078,454,945	941,124,293
Rate of return (per cent)	4.11	3.69
Net income, after charges (estimated)	826,874,000	690,568,000
	Month of December	
	1952	1951
Total operating revenues	$935,060,693	$902,169,484
Total operating expenses	711,367,422	674,000,577
Operating ratio—per cent	76.08	74.71
Taxes	96,971,914	102,894,229
Net railway operating income (Earnings before charges)	109,602,097	108,692,303
Net income, after charges (estimated)	143,450,000	121,614,000

Supreme Court Decisions

The United States Supreme Court has upheld a New York Court of Appeals ruling to the effect that a railroad which has made payments to a disabled employee under that state's Workmen's Compensation Law is estopped from having the case converted into a proceeding under the Federal Employers' Liability Act.

In another recent decision, the court passed upon a case involving the status, in the New York, New Haven & Hartford reorganization, of some New York City liens on properties of that road.

The employee compensation case was South Buffalo v. Ahern and New York State Workmen's Compensation Board, docketed in the Supreme Court as No. 179. The latter's decision, announced by Justice Clark, was accompanied by a dissenting expression from Justice Douglas. The majority opinion said in part:

"We do not doubt that the Federal Employers' Liability Act . . . displaces any state law trenching on the province of the act. . . . The New York Court of Appeals, however, manifested meticulous care to avoid collision; it construed the Workmen's Compensation Law as a mere legislative authorization, *permitting* the [Workmen's Compensation] Board to effectuate private agreements for compromising a federal controversy. . . . The difference between coercion and permission is decisive; New York's jurisdictional grant, so confined, does not transgress. . . .

"Here . . ., whether motivated by charity, dislike of litigation, or trial strategy, appellant made payments until the statute of limitations barred the employee's federal claim. Fully advised of its legal rights, it submitted the controversy to the board. The New York Court . . . viewed these circumstances as estopping appellant from the assertion of so long delayed a change of heart. No tenet of federal law compels otherwise."

The case involving New York City's liens against New Haven properties was docketed in the Supreme Court as No. 203. It came up from the United States Circuit Court of Appeals for the Second Circuit which upheld a lower court determination that the city was barred from enforcing the liens.

In its appeal from that determination, the city contended that, since the liens were on specific parcels of real estate, they were collectable out of such parcels; and thus the city was not involved in the NH reorganization proceeding as a creditor required to file claims in the bankruptcy court. The city also contended that, in the absence of service of notice on the city, the lower court was without power to forfeit its liens because of the city's failure to appear as a claimant.

The Supreme Court rejected the former contention; but it ruled, as to the latter, that the city had not received proper notice of the deadline for filing its claim as a "creditor."

L-&-S-H Clause Gets Light Knudson Touch

The Interstate Commerce Commission might well turn a "sympathetic ear" to the railroads if they can support their assertions to the effect that they deserve relief from circuity limitations in fourth-section cases, Commissioner Knudson said last week.

At the same time, the commissioner emphasized that he was "not referring to that aspect of the long-and-short-haul controversy relating to competition between railroads and other forms of carriage."

Mr. Knudson included the foregoing in a February 3 speech which he delivered at Stockton, Calif., appearing in his role of administrator of the Defense Transport Administration. As to the circuity-limitation matter, he pointed out that most of the commission's decisions authorizing fourth-section departures involve competition between railroads and impose such limitations.

President Tells Congress Controls Can Be Reduced

President Eisenhower recommended to Congress in his State of the Union message last week that controls over materials and products be curtailed when the present law expires June 30.

Except for defense priorities and for scarce items needed for defense, he believes these controls should be ended.

"I shall recommend to the Congress that legislation be enacted to continue

authority for such remaining controls of this type as will be necessary after the expiration of the existing statute on June 30, 1953," the President said.

The Defense Transport Administration functions under this general authority to allocate. The President's statement thus raises the question of whether he will request authority which will permit D.T.A. to stay in business.

As to price and wage controls the President was more specific. He said he did not intend to seek renewal of the price-wage provisions of the law. These provisions expire April 30.

Meanwhile, Senator Capehart, Republican of Indiana and chairman of the Senate Banking and Currency Committee, has introduced an omnibus bill that would extend controls on a stand-by basis.

The senator said his bill (S. 753) "covers some features not contained in the President's recommendations," but will enable the committee to go ahead with hearings on the general subject.

The President followed through promptly to take steps to end wage controls. A February 6 executive order suspended all "regulations and orders" of the Wage Stabilization Board. An adjunct of this board, the Railroad and Air Line Wage Board, also came to an end.

This separate railroad-air line board was established in October 1951 to pass on voluntary wage adjustments in these industries. The Defense Production Act required establishment of a separate agency to administer wage controls over employees subject to the Railway Labor Act.

Termination of the wage control program was effective immediately. The President's order stated that petitions pending before wage and salary control agencies "may now be placed in effect without the approval of such agencies."

Another executive order, issued February 4, abolished the Defense Production Administration and transferred its functions to the top-level Office of Defense Mobilization. Among other things, the O.D.M. director was made certifying agent for the accelerated amortization program.

Dr. Arthur S. Flemming is acting director of O.D.M. He succeeded Henry H. Fowler, who resigned recently.

CLOSING THE DOOR on the first carload of appliances to be shipped from the General Electric Company's new Appliance Park at Louisville, Ky., are (left), James H. Goss, general manager of the home laundry equipment department, and Herbert A. Warren, major appliance division manager of distribution. The shipment, automatic clothes dryers for G.E. distributors in Houston, Tex., and Beaumont, left February 6.

I.C.C. Bureau Issues New Valuation Figures

The Interstate Commerce Commission's Bureau of Valuation has issued another of its statements showing elements of value of property used by Class I line-haul railroads in their common-carrier service. The statement sets out the valuation data as of January 1, 1952. Except that they are brought down to that date, the figures are the same as those contained in Exhibit 119 which was introduced in the Ex Parte 175 freight-rate case.

For all roads, the cost of reproduction new, except land and rights, is shown as $46,557,963,069, including $33,057,091,284 for road, and $13,500,871,785 for equipment. "Less depreciation," the total becomes $30,033,268,502, including $22,637,016,780 for road, and $7,396,251,722 for equipment.

Original cost, except land and rights, is shown as $27,888,663,074, including $17,535,245,444 for road, and $10,353,417,630 for equipment.

The "present" (January 1, 1952) value of land and rights is put at $1,966,672,842, while working capital, including materials and supplies, is put at $889,994,800.

I.C.C. Is Urged to Deny Seatrain Complaint Case

The Association of American Railroads last week told the Interstate Commerce Commission that it should, "as a matter of sound discretion," decline to issue declaratory orders requested in a recent Seatrain Lines' petition.

Seatrain asked the commission for declaratory orders "to remove uncertainties" arising from a decision of a federal district court in New Jersey. The court dismissed Seatrain's suit for damages and for injunctive relief on use of freight cars (*Railway Age*, December 22, 1952, page 51).

Seatrain's petition amounts to no more than an invitation to the commission to review the decision of the court; and for the commission to act would place it in an "untenable and even an unseemly position," the A.A.R. said. It urged that the petition be dismissed.

The A.A.R. said questions raised in the Seatrain petition were clearly in the case before the court. The court said the "heart of the controversy" between Seatrain and the railroads revolves around "the question of whether Seatrain shall have access to the freight cars of the railroads." The court held the I.C.C. has "primary jurisdiction" to determine this basic question, and the sources of such jurisdiction were stated, the A.A.R. said.

"It is evident that the questions posed by Seatrain for answer by declaratory orders of the commission were disposed of by the district court in the antitrust case, subject only to review in the higher courts upon appeal," the A.A.R. continued. Such appeal now is pending, both in the circuit court of appeals and in the U.S. Supreme Court.

Interterritorial Rate Pact Approved by I.C.C.

Division 2 of the Interstate Commerce Commission has approved an agreement providing procedures for joint consideration or establishment of interterritorial railroad rates and regulations pertaining thereto.

The approval was pursuant to the Interstate Commerce Act's section 5a, which was added by the Reed-Bulwinkle Act; and it gives participating carriers immunity from the anti-trust laws insofar as joint actions in matters

Briefly . . .

. . . New garb for Cotton Belt passenger trains—a combination of silver, orange, yellow and black for both cars and passenger locomotives—is being introduced as fast as the company shops are able to give the equipment the new paint scheme.

. . . A safety first calendar—complete with information on how to utilize different units of the company's safety equipment—has been presented to each employee of the Chicago & Eastern Illinois. The calendar, which was mailed with a personal message from President C. M. Roddewig, was actually addressed to the wife or mother of each employee with the hope of adding distaff impetus to the impact of its safety message.

. . . Through intensified efforts of shippers and railroads, the average number of damaged crates per car of honeydew melons in transit dropped by more than 90 per cent between 1946 and 1952, the National Container Committee of the Association of American Railroads has announced. Damaged crates of melons declined from an average of 45.9 per car in 1946 to only 4.5 per car in 1952, the committee said, while average payment for damaged melons went down from $102.65 per car in 1946 to an average of $29.99 in 1951. Reasons given for the improvement were studies conducted by railroad representatives and by shippers and receivers of melons, introduction of crosswise loading of crates, and continuous efforts of claim prevention officers of railroads originating and delivering shipments of melons.

. . . To honor the more than 5,300 men and women of the Southern Pacific who have joined the armed forces since the close of World War II—and especially the 35 who have given their lives—the SP is placing service flags at suitable locations in its principal offices all over its system. Said President D. J. Russell in announcing the move: "We turn our thoughts in deep respect to the contribution youth is making to preserve the rights and principles so cherished by the American people."

covered by the agreement are concerned.

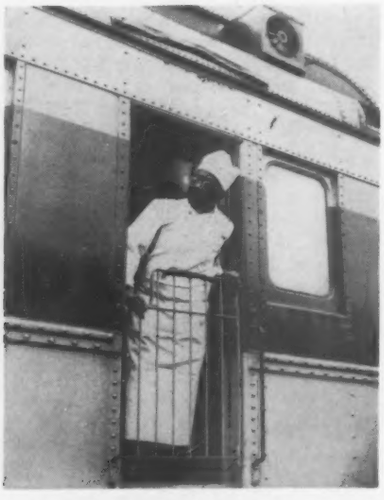
The proceeding was docketed as Section 5a Application No. 26, and the Department of Justice was in its usual role of protestant to approval of the pact. The division rejected the protest.

Parties to the agreement are about 325 railroads, water carriers and motor carriers. The water and motor carriers will participate as to joint interterritorial rates which they maintain with the railroads.

As the division pointed out, the agreement does not set up a new organization, but provides for utilization of services and procedures of five territorial organizations which were set up as a result of "Bulwinkle-Act" agreements previously approved by the commission. They are: Western Traffic Association; Traffic Executive Association—Eastern Railroads; Southern Freight Association; Illinois Freight Association; and Southern Ports Foreign Freight Committee.

The division included in its report some brief comment on the agreement's "freight-classification functions," and sounded there a warning to the effect that it will not permit such activities to result in what it regards as undue erosion of Uniform Freight Classification No. 1, which went into effect last May 30.

"This event," the report continued, "was the culmination of efforts begun in the very first year of the commission's existence. The applicants might well have set up a more cohesive organization for the processing of classification matters in the future. Their failure to do so . . . has not obviated approval of the agreement before us. But if the classification procedure embodied in this agreement should operate in the future to dismember or seriously impair the usefulness of the uniform freight classification it may call for reexamination of this feature of the agreement."



CHARLES E. WOOD (above), traveling chef of the dining car department of the Lackawanna, who also has been chef on the business car of the president of the road since January 1916, retired recently after 39 years and three months of service. The retired chef, born on November 1, 1880, in Beacon, N.Y., was the originator of many special dishes which contributed to the popularity of the road's dining car service.

American University Plans Seventh Railroad Institute

The seventh Rail Transportation Institute to be conducted by the American University, Washington, D.C., will be held March 3-27. Dr. L. M. Homberger, professor of transportation at the university, will be director of the institute.

Following generally a program similar to those of its predecessors, the institute will offer a course covering various phases of railroading and current problems of all modes of transportation. There will also be field studies of rail and water transport facilities in the Washington-Baltimore area.

Among those scheduled to lecture at the institute are Robert S. Henry, Julius H. Parmelee and A. R. Seder, vice-presidents of the Association of American Railroads, and A. H. Gass, chairman of the association's Car Service Division; W. M. King, vice-president, Southern; K. N. Merritt, vice-president, Railway Express Agency; and L. K. Sillcox, vice-chairman of the board, New York Air Brake Company.

Interstate Commerce Commissioner J. Monroe Johnson will speak at one of the institute's two supper meetings, while the other will be addressed by Major General Carl R. Gray, Jr., administrator of veterans affairs, who was director of the Military Railway Service during World War II. Defense Transport Administrator James K. Knudson, who is also a member of the I.C.C., will speak at the institute's closing dinner, when certificates will be awarded to students completing the course.

The university's announcement said students may be selected by their employers, and that others may apply by submitting information about their educational background and practical experience. No specific previous education is required, and there is no age limit.

Applications for admission should be addressed to Dr. Homberger, the American University, 1901 F Street, N.W., Washington 6, D.C. February 26 will be the last registration day. Tuition will be $135.

Southwestern Roads Urged To "Plan for Future"

At the annual meeting of the Southwest Shippers Advisory Board, held at Beaumont, Tex., January 21-22, discussion centered about car supply—which was described as "good" in the southwest; the clean car program, and observance of Car Service Rules.

Main speaker was E. C. Rechtin, general manager of the Shipbuilding division of Bethlehem Steel Company at Beaumont. He pointed out that "railroads in the southwest not only must keep pace with progress, but must begin to plan immediately for the future so that the 'fantastic' industrial

development period now being experienced in the southwest does not find the railroads and shippers wanting."

J. J. Kelly, manager, Military Transportation Section, Car Service Division, Association of American Railroads, told the group that military requirements for transportation are larger than most people realize and stressed the need for shippers and railroads alike to impress the importance of America's railroads, during time of war, on the general public.

The board voted to hold its next meeting in Oklahoma City, May 26-28.

Freight Car Loadings

Loadings of revenue freight in the week ended February 7 totaled 690,744 cars, the Association of American Railroads announced on February 12. This was a decrease of 6,872 cars, or 1 per cent, compared with the previous week; a decrease of 43,175 cars, or 5.9 per cent, compared with the corresponding week last year; and an increase of 117,535 cars, or 20.5 per cent, compared with the equivalent 1951 week.

Loadings of revenue freight for the week ended January 31 totaled 697,616 cars; the summary for that week, compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, January 31

District	1953	1952	1951
Eastern	125,863	129,236	122,814
Allegheny	146,192	148,064	142,959
Pocahontas	50,830	58,956	54,372
Southern	128,843	132,645	112,521
Northwestern	74,266	79,431	63,545
Central Western	112,927	119,725	106,856
Southwestern	58,695	63,161	48,098
Total Western Districts	245,888	262,317	218,499
Total All Roads	697,616	731,218	651,165
Commodities:			
Grain and grain products	46,075	53,474	44,033
Livestock	6,753	9,167	5,765
Coal	123,201	151,338	138,523
Coke	14,835	16,246	15,169
Forest products	43,998	42,454	36,578
Ore	19,530	17,535	14,122
Merchandise l.c.l.	68,891	72,362	68,793
Miscellaneous	374,333	368,642	328,182
January 31	697,616	731,218	651,165
January 24	697,641	728,015	784,166
January 17	705,479	747,660	779,750
January 10	688,232	744,710	783,015
January 3	563,085	610,116	662,427
Cumulative total 5 weeks	3,352,053	3,561,719	3,660,523

In Canada.—Carloadings for the 10-day period ended January 31 totaled 113,557 cars, compared with 73,390 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 31, 1953	113,557	47,587
January 31, 1952	114,802	50,335
Cumulative Totals		
January 31, 1953	314,982	132,266
January 31, 1952	330,826	150,436

No Sabotage!

Investigation as to why a steel rail lay across the right of way of the Grand Trunk Western near Kalamazoo, Mich., on January 24, has cleared the incident of any overtones of sabotage.

The rail was struck by an eastbound passenger train without damage. But in view of a somewhat similar case involving a tie on the Baltimore & Ohio near Baltimore, and several possible cases of tampering with air brake equipment reported on the New Haven shortly after the Washington Union Station accident (*Railway Age*, February 2, page 48), sabotage was initially suspected in the near-accident at Kalamazoo. However, the Federal Bureau of Investigation has developed that the rail had just previously been removed from the track and had been left partially protruding over a ditch adjacent to the main track. A small boy, seeking to cross the ditch by walking on the rail, upset it back onto the track shortly before the train passed. Being unable to remove it from the path of the train, he fled the scene. He later told authorities what happened and was released without charge.

Meantime, however, a suspected attempt to wreck two Chicago, Rock Island & Pacific passenger trains is being investigated by the railroad and the F.B.I. Four angle bars, taken from the site of nearby track work, were placed across main-line trackage at Joliet, Ill., on February 4, shortly before two "Rockets" were due to pass the scene in opposite directions. Two youths discovered and removed two of the bars and reported their findings to the road's bridgetender, who located and removed two more just before the trains were due.

Investigation, while not complete, points to the work of a prankster. The scene is in a well populated section of Joliet through which trains are subject to a 25 m.p.h. slow order.

It Should Have Been A.C.!

Alert readers have used telephone, telegraph, mail and word of mouth to inform us that General Electric's new

1952—The Railroads' Safest Year

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summary of "steam railway" accidents for December and the 12 months of last year.

As had been expected, the figures showed that 1952 was the safest year on record for railroad travel (*Railway Age*, January 12, page 11)—a fact which was strongly emphasized by William T. Faricy, president of the Association of American Railroads, in a February 10 address to the Chamber of Commerce of Greater Philadelphia.

The compilation, which is subject to revision, appears below, as does the similar compilation for November.

December and 12 Months

Item	Month of December 1952	Month of December 1951	12 months ended with December 1952	12 months ended with December 1951
Number of train accidents*	929	1,044	10,072	11,077
Number of accidents resulting in casualties	57	64	563	580
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	56	69	1,012	1,091
Injured	64	63	934	1,001
Passengers on trains:				
(a) In train accidents*				
Killed	..	..	..	126
Injured	80	39	275	1,365
(b) In train-service accidents				
Killed	1	..	12	16
Injured	153	154	1,718	1,769
Travelers not on trains:				
Killed	..	1	9	7
Injured	91	91	753	740
Employees on duty:				
Killed	38	41	354	395
Injured	1,784	2,366	20,527	23,340
All other nontrespassers:**				
Killed	163	204	1,554	1,723
Injured	679	713	5,754	6,219
Total — All classes of persons:				
Killed	258	315	2,941	3,358
Injured	2,851	3,426	29,961	34,434

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $300 or more to railway property in 1951. Beginning January 1, 1952, this minimum was raised to $325. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nonpassers, were as follows:

Persons:				
Killed	161	200	1,415	1,578
Injured	494	540	3,891	4,335

November and 11 Months

Item	Month of November 1952	Month of November 1951	11 months ended with November 1952	11 months ended with November 1951
Number of train accidents*	843	971	9,142	10,033
Number of accidents resulting in casualties	48	65	508	516
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	88	61	965	1,022
Injured	55	66	866	938
Passengers on trains:				
(a) In train accidents*				
Killed	..	26	..	126
Injured	3	169	195	1,326
(b) In train-service accidents				
Killed	..	1	12	16
Injured	107	124	1,567	1,615
Travelers not on trains:				
Killed	..	..	8	6
Injured	54	60	658	649
Employees on duty:				
Killed	15	52	316	354
Injured	1,756	1,815	18,723	20,977
All other nontrespassers:**				
Killed	159	183	1,393	1,519
Injured	662	712	5,076	5,506
Total — All classes of persons:				
Killed	262	323	2,694	3,043
Injured	2,637	2,946	27,085	31,011

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	157	174	1,255	1,378
Injured	496	541	3,398	3,795

RAILROAD EXECUTIVES MAKE WHITE HOUSE CALL

Fred G. Gurley, president of the Atchison, Topeka & Santa Fe, Walter S. Franklin, president of the Pennsylvania, A. L. M. Wiggins, chairman of the Atlantic Coast Line, and William T. Faricy, president of the Association of American Railroads, called upon President Eisenhower at the White House on February 12. They had a 15-minute visit with the President.

Mr. Faricy told reporteds that the group was a special committee appointed by the A.A.R. to maintain liaison with the new administration, and that they had called to pay their respects to the President and to offer their cooperation. Mr. Faricy also said their talk with the President included a general discussion of the railroad situation and the industry's place in the national defense and the general economy of the country.

electric freight locomotives for the Pennsylvania do not have direct current traction motors. This despite a photo-caption on page 174 of our January 12 issue stating that they do.

Actually, the G.E. locomotives have single-phase alternating current commutator motors. Direct current inadvertently crept in because the Westinghouse electric freight locomotive, shown in a companion photo, does convert 11,000-volt a.c. power (in an ignitron rectifier) to direct current for use by standard diesel-type traction motors. The captions for the two photos failed to clarify this distinction, and the guilty editor is currently serving 30 days without coffee.

Hansbury Named Acting Head of Valuation Bureau

John E. Hansbury, head valuation engineer of the Bureau of Valuation, Interstate Commerce Commission, has been appointed acting director of the bureau.

Mr. Hansbury succeeds the late George S. Douglass, who was the bureau's director at the time of his death on January 5 (*Railway Age*, January 12, page 14).

I.C.C. Sets New Hearing In Probe of Free Passes

Commissioner Mitchell will conduct a February 20 hearing at Chicago in connection with the Interstate Commerce Commission's investigation of "unauthorized free transportation by railroads."

"At such hearing evidence may be introduced bearing on the question of whether employees of brokers, or insurance agencies placing or writing rail carriers' insurance may be given free interstate transportation," the commission said in a January 30 notice.

This investigation of free passes on the railroad is docketed as No. 30475, and was instituted by the I.C.C. in February 1950. Western and eastern railroads have submitted evidence at previous hearings in Chicago.

ALCO OFFERS ANOTHER PAN AM. CONGRESS PRIZE

The American Locomotive Company is offering a prize of $1,000 for the best paper submitted to the Eighth Pan American Railway Congress on methods of increasing railroad revenue and reducing costs through improved operating, servicing and/or storekeeping practices—as a result of application of diesel-electric locomotives (subjects Nos. 49, 52, 97, 100 and 101 in the suggested list of subjects issued by the Organizing Committee for the congress).

This prize is in addition to three special prizes, also of $1,000 each, announced in *Railway Age* February 9, page 11; and to some $12,000 in other prizes previously announced.

To be considered for this Alco award, U. S. entries, in triplicate, must be in the hands of the chairman of the committee on papers—Dr. Lewis K. Sillcox, vice-chairman of the board of the New York Air Brake Company, Watertown, N.Y. — not later than February 28.

CANADIAN PACIFIC PRESIDENT W. A. Mather (right), looks on as Chris Bettle, of the Budd Company, handles the controls of a rail diesel car during a recent test run between Montreal and Ste. Anne-de-Bellevue. The 89-passenger car is scheduled to spend a month on regular daily service to the Laurentians; during that period it will provide northbound week-day connections with trains from New York, Boston and Toronto, making reverse connections on its southbound trip from the mountains. The RDC is being tested by the CPR as part of the road's long-term program of modernization, and may be adapted to several runs in all parts of Canada.

B. S. Voorhees Joins Railway Car Institute

B. S. Voorhees, who retired last December 31 as vice-president of the New York Central (*Railway Age*, December 22, 1952, page 59), has been appointed assistant to Gustav Metzman, chairman of the American Railway Car Institute.

After next July 1 the offices of the institute, now at 19 Rector street, New York, will be at 19 East 47th street, New York 17.

NYC's Question: Do Car Builders Get Free Rides?

The New York Central has asked the Interstate Commerce Commission to determine whether the road may furnish free transportation to employees of Despatch Shops, Inc.

Despatch is a wholly owned subsidiary of NYC. Since 1936, the company has operated a plant at East Rochester, N.Y., and has engaged in the business of manufacturing, rebuilding and repairing freight cars.

Property of the car-building company has never been included in valuation of NYC, and no reports have been made to the I.C.C. regarding this

plant, the road said. It added that it has never considered the activities of Despatch "as being those of a common carrier."

Uncertainty arose, however, when the U.S. Court of Appeals for the District of Columbia held that Despatch is an "employer" within the meaning of the Railroad Unemployment Insurance Act. This placed employees under railroad retirement, and, NYC said, "would appear to entitle Despatch employees to free transportation."

The retirement act authorizes free transportation for individuals receiving annuities or pensions. Despatch employees who are retired can thereby qualify. NYC asked the commission to clear up the "uncertainty" as to whether it may provide regular Despatch employees with free transportation under section 1(7) of the I.C. Act.

CGW Strike Picture Takes Encouraging Turn

After a number of "far into the night" meetings between officers of the strikebound Chicago Great Western and representatives of the six striking unions (*Railway Age*, February 9, page 15), many of the major issues in dispute have been resolved and the prospect for an early end to the tieup was pictured by both sides as "much brighter."

A spokesman for the road told *Railway Age* on February 11 that "good progress" was being made, although he added that "nobody can foresee at this moment just when it will all end." Among the grievances that remained in dispute were items on crew and equipment safety and on certain operating rules. Leverett Edwards, of the National Mediation Board, who arranged the negotiating meetings, characterized the situation in baseball language. Said he: "You can say we're closer to home—we're sliding into third base."

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages for the week ended February 7 were announced by the Association of American Railroads on February 12 as follows:

	Surplus	Shortage
Plain Box	9,220	1,372
Auto Box	184	38
Total Box	9,404	1,410
Gondola	4,606	106
Hopper	43,528	110
Covered Hopper	509	0
Stock	6,772	0
Flat	116	319
Refrigerator	1,815	0
Other	320	64
Total	67,070	2,009

OVERSEAS

Pakistan.—The government has invited bids for two meter-gage diesel-hydraulic switching locomotives for use on the East Bengal Railway, according to Foreign Commerce Weekly. Documents pertaining to the invitation may be borrowed from the Commercial Intelligence Division, U. S. Department of Commerce, Washington 25, D. C.

Thailand.—This country's State Railways, according to Foreign Commerce Weekly, have invited bids for 15 Pacific-type and 60 Mikado-type steam locomotives; steel rails and accessories; 200 sets of turnouts; and 25 sets of level crossing barriers. Bidding conditions and specifications may be borrowed from the Commercial Intelligence Division, U. S. Department of Commerce, Washington 25, D. C.

ORGANIZATIONS

Tentative A.R.E.A. Convention Program

Finishing touches are now being placed on the program of the American Railway Engineering Association's annual convention, to be held at the Palmer House, Chicago, March 17-19. Presentation of committee reports will be interspersed with special papers and addresses by both members and non-members. Twelve or more standing committees of the association will hold meetings or luncheons during the convention period.

For the ladies a reception room and lounge, will be open at all times with a reception and tea in the Crystal room on the afternoon of March 17.

Here is the tentative program:

TUESDAY, MARCH 17

Grand Ballroom, 9:45 to 12:15

Address by President C. J. Geyer
Report of secretary and treasurer
Address by J. H. Aydelott, vice-president, Operations and Maintenance Department, A.A.R.
Address by G. M. Magee, research engineer, Engineering Division, A.A.R.
Reports of committees: 14—Yards and Terminal; 16—Railway Location.

2:00 to 4:45

Reports of committees: 25—Waterways and Harbors; 9—Highways; 24—Cooperative Relations with Universities; 20—Contract Forms; 11—Records and Accounts; 13—Water, Oil and Sanitation Services.

WEDNESDAY, MARCH 18

Red Lacquer Room, 9:00 to 12:00

Reports of committees: 7—Wood Bridges and Trestles; 28—Clearances; 29—Waterproofing; 30—Impact & Bridge Stresses; 8—Masonry; 15—Iron & Steel Structures.
Association Luncheon, 12:00 noon, Grand Ballroom
Address by Dr. Francis Gaines

Red Lacquer Room, 2:30 to 5:15

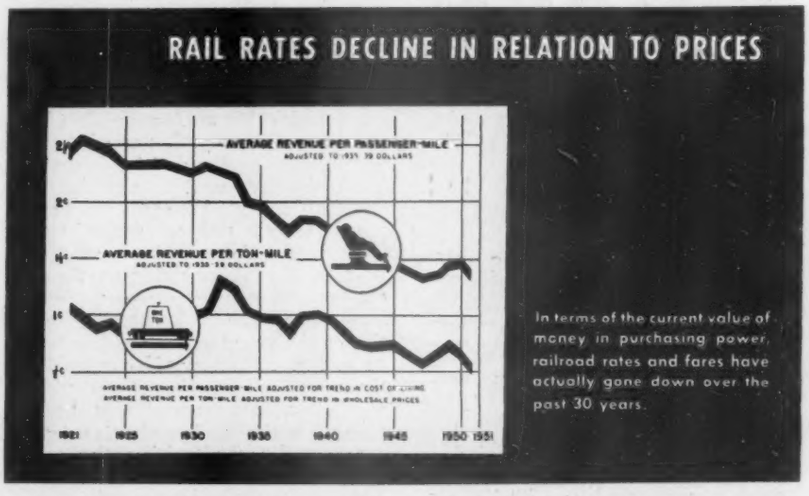
Reports of committees: 17—Wood Preservation; 6—Buildings;—27—Work Equipment; 22—Railway Labor; 1—Roadway and Ballast.

THURSDAY, MARCH 19

Grand Ballroom, 9:00 to 12:30

Reports of committees: 3—Ties; 5—Track; Continuous Welded Rail; 4—Rail.
Closing business
Installation of officers.

The **Perishable Freight Agents Association of New York** has elected the following officers for 1953: President, Roland G. Gebert, dairy agent, New York Central; vice-president, Thomas E. Dehoney, eastern perishable freight agent, Atchison, Topeka & Santa


RAIL RATES DECLINE IN RELATION TO PRICES
AVERAGE REVENUE PER PASSENGER-MILE
ADJUSTED TO 1931 TD DOLLARS
AVERAGE REVENUE PER TON-MILE
ADJUSTED TO 1930 TD DOLLARS
1921
1925
1930
1935
1940
1945
1950
1951
In terms of the current value of money in purchasing power, railroad rates and fares have actually gone down over the past 30 years.

"IT'S A HELL OF A WAY TO RUN A RAILROAD" has become a common expression, says the Pennsylvania, because most railroaders don't take time to tell the railroad story, either on the job, at home, or in their communities. This, and other cogent observations, are contained in a colorful, illustrated, 34-page booklet (one page of which is reproduced above), titled "Speak Up, Railroader!" Prepared for distribution to PRR employees (*Railway Age*, February 2, page 8), the book provides basic economic facts about the PRR, as well as a picture of what railroads mean to the nation's economy as a whole. Railroaders armed with data in the booklet will be well qualified to tell the railroad story.

Fe; treasurer, John P. Fitzpatrick, perishable traffic agent, Illinois Central; and secretary, Robert A. Pepper, general agent, Toledo, Peoria & Western.

The **Bronx Traffic Club,** New York, has elected the following officers for 1953: President, Peter R. Turnbull, general traffic manager, R. Hoe & Co.; vice-president, Michael Deitch, traffic representative, Republic Carloading & Distributing Company; treasurer, B. Fialkoski, assistant traffic manager, R. Hoe & Co.; and secretary, Norman Fisher, traffic representative, Continental Transportation Lines. The club will hold its 21st annual dinner-dance at the Concourse Plaza Hotel February 21.

A. E. Spette, assistant general passenger agent, New York, New Haven & Hartford, has been elected president of the **General Eastern Passenger Agents Association of New York.** Other officers are: Vice-president, M. R. Kielgas, general eastern passenger agent, Chicago & North Western; treasurer, W. F. Vitt, general agent, passenger department, Missouri Pacific; secretary, T. J. Glancy, general agent, passenger department, Chicago, Rock Island & Pacific; and assistant secretary, J. H. Dimke, assistant general passenger agent, Erie.

The **Stock Yards District Traffic Club** (Chicago) will observe "Claim Prevention Night" on February 19, when C. A. Naffziger, director of the Freight Loss and Damage Prevention Section of the Association of American Railroads, will be guest speaker.

Clifford G. Massoth, editor of the Illinois Central Magazine, will address the **Railroad Club of Chicago** on "This Railroad Business" on February 20.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

7,981 Freight Cars Delivered in January

New freight cars delivered in January for domestic use totaled 7,981, compared with 7,845 in December, the American Railway Car Institute and the Association of American Railroads have announced jointly. January deliveries were the highest for any single month since March 1952, which was before the steel strike began.

New freight cars ordered in January amounted to 5,536, the announcement added, and the backlog of cars on order and undelivered on February 1 was 77,414. A breakdown by types of cars ordered and delivered in January and of cars on order on February 1 appears in the accompanying table.

Type	Ordered Jan. '53	Delivered Jan. '53	On Order & Undelivered Feb. 1, '53
Box—Plain	1,795	2,749	19,696
Box—Auto	0	0	500
Flat	202	110	3,572
Gondola	975	1,149	17,423
Hopper	1,000	2,584	20,080
Covered Hopper	477	379	6,192
Refrigerator	950	501	3,185
Tank	137	382	5,136
Caboose	0	22	157
Other	0	105	1,473
Totals	5,536	7,981	77,414
Carbuilders	4,616	5,972	45,782
Railroad Shops	920	2,009	31,632

The **Duluth, South Shore & Atlantic** has ordered 100 50-ton, 41½-ft. gondola cars from the American Car & Foundry Co. for delivery in September.

The **Louisville & Nashville** has ordered 2,000 freight cars, at a cost of $13.2 million. Included are 1,000 40-ft. box cars, 500 50-ft. box cars and 500 gondola cars, to be built by the Pullman-Standard Car Manufacturing Company at Bessemer, Ala.; the Pressed Steel Car Company at Mt. Vernon, Ill.; and the Bethlehem Steel Corporation at Johnstown, Pa., respectively.

PASSENGER CARS

Complete modernization of the **Long Island's** electric passenger car fleet would require purchase of 112 new cars (in addition to 20 ordered last year—*Railway Age*, March 24, 1952, page 56), and full rehabilitation of 558 of its present cars, according to a special study committee report submitted to Trustee William Wyer. The study also said 431 of the LI's oldest cars could be retired, and that the most economical means of providing additional seating and full modernization of rolling stock operated in electrified territory would involve expenditure of $28,796,062, of which $11,107,616 would represent cost of the 112 new cars.

The accelerated heavy repair program which began January 1 (*Railway Age*, February 2, page 16), will be continued until a decision is reached on modernization. "It may be that financial limitations will not permit providing completely modernized equipment in the foreseeable future," Mr. Wyer said in commenting on the special study committee's report, "but at least we now have accurate information on the extent of the problem facing us and what is needed to solve it in the most economical and satisfactory way." Mr. Wyer added that he has ordered a similar investigation into a program for modernizing the road's 325 non-electric cars.

The **Southern Pacific** has ordered 25 chair cars, 15 from the Budd Company and 10 from the Pullman-Standard Car Manufacturing Company. Some cars, for overnight travelers, will have specially designed seats and leg rests, while other cars will have 5-ft. wide picture windows. All cars will have adjustable foam rubber seats.

SIGNALING

The **Atlantic Coast Line** has ordered from the Union Switch & Signal Division of the Westinghouse Air Brake Company material to install code control of territory between Hebardville, **Ga., and Waycross,** 2.5 miles, including territory at Lang. The control machine will be at Waycross passenger station. Construction will be handled by railroad forces.

The American Locomotive Company has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company 10 sets of Type E two-indication cab signal and speed control equipment to be installed on diesel locomotives being built for the **Louisville & Nashville.**

Fairbanks, Morse & Co. has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company 10 sets of two-indication continuous cab signal equipment to be installed on diesel switchers being built for the **Delaware, Lackawanna & Western.**

The **Nashville, Chattanooga & St. Louis** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to install traffic control on three tracks which will provide connections from the main line at Danley, Tenn., Glencliff and Nashville (Oak street) to the new yard now under construction at Radnor, Tenn. The Danley and Glencliff connections will be controlled from an existing machine at Cowan, which handles Nashville-Stevenson, Ala., C.T.C. territory. The Oak Street connection will be controlled from an interlocking machine now in service at that point. Field installation will be handled by railroad forces.

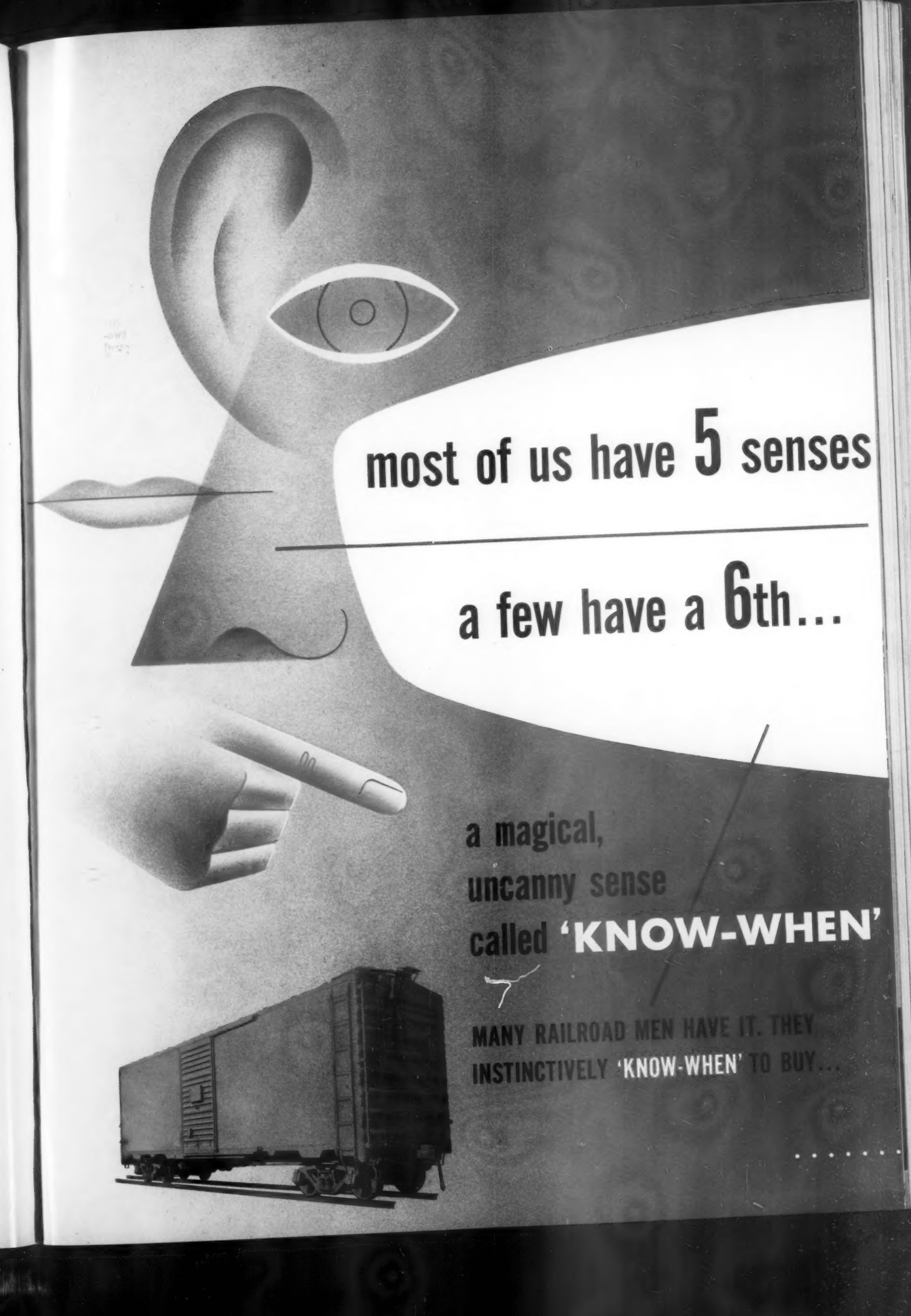
SUPPLY TRADE

Two Firms Join to Make Freight Roller Bearings

The Franklin Railway Supply Company and the Bower Roller Bearing Company have joined forces to produce freight-car roller bearings. Under a new agreement, Franklin's subsidiary, the Franklin Balmar Corporation, Baltimore, will manufacture and sell freight-car journal boxes incorporating Bower roller bearings.

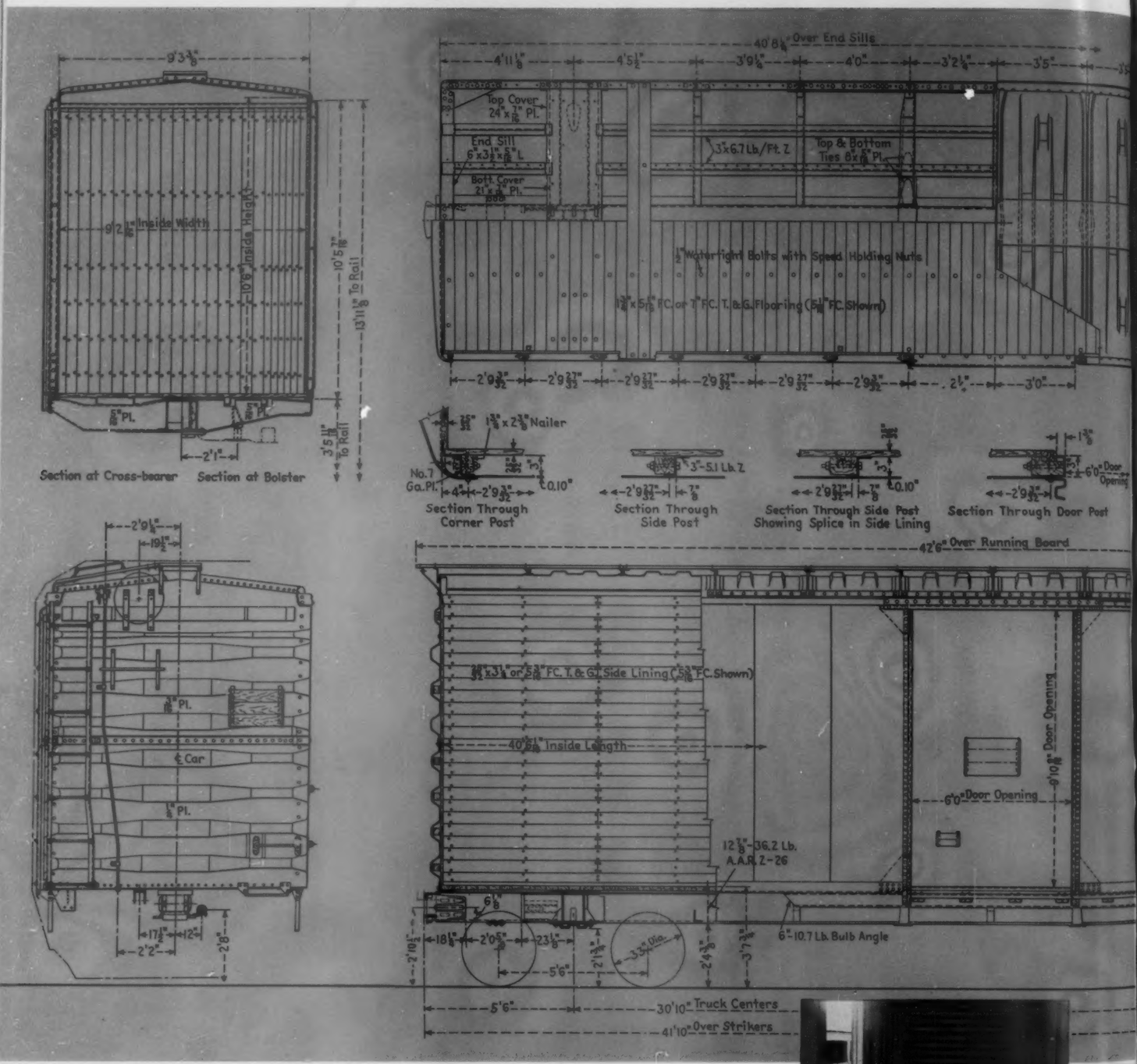
Franklin has for more than 50 years manufactured equipment for locomotive journal lubrication. In recent years it has manufactured journal boxes for solid bearings and for roller bearings on diesel locomotives and passenger cars. Describing the new agreement as "an expansion into a broader area of a new field with which we are already familiar," George W. Alcock,

(Continued on page 54)


most of us have 5 senses
a few have a 6th...
a magical,
uncanny sense
called 'KNOW-WHEN'
MANY RAILROAD MEN HAVE IT. THEY
INSTINCTIVELY 'KNOW-WHEN' TO BUY...

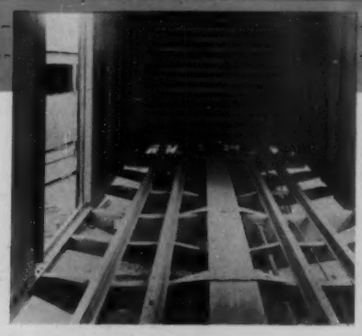
WHEN YOU DECIDE TO BUY A BOX CAR . . .

HERE'S WHAT


40'8¼" Over End Sills
Top Cover 24"x 7/16" Pl.
End Sill 6"x3½"x 5/16" L
Bott Cover 21"x 7/16" Pl.
3½x6.7 Lb/Ft. Z
Top & Bottom Ties 8"x 7/16" Pl.
1" Watertight Bolts with Speed Holding Nuts
13/16"x5 1/16" FC. or 1" FC. T. & G. Flooring (5 1/16" FC. Shown)
Section at Cross-bearer
Section at Bolster
Section Through Corner Post
Section Through Side Post
Section Through Side Post Showing Splice in Side Lining
Section Through Door Post
42'6" Over Running Board
13/16"x3½" or 5 3/16" FC. T. & G. Side Lining (5 3/16" FC. Shown)
40'5 13/16" Inside Length
6'0" Door Opening
9'10⅜" Door Opening
12 7/8"-36.2 Lb. A.A.R. Z-26
6"-10.7 Lb. Bulb Angle
5'6"
30'10" Truck Centers
41'10" Over Strikers

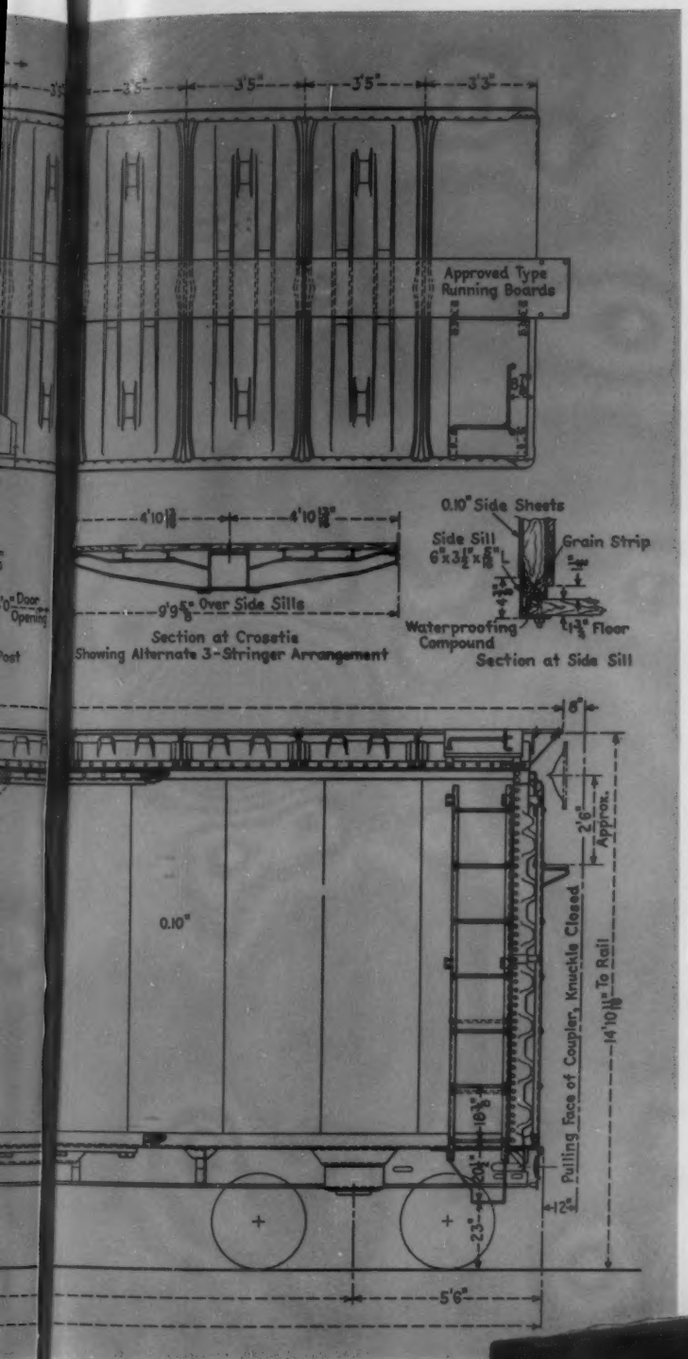
a.c.f.

CAR BUILDERS TO AMERICA'S RAILROADS



Note the extra cross member at the door where greatest stress is encountered in loading.

a.c.f. OFFERS



a.c.f. *Standardized Box Car Design* was originated from the best features of all available designs, and incorporates many unique improvements.

All elements of design meet maximum I.C.C. requirements and in many cases actually exceed such stipulations... resulting in an additional measure of strength and trouble-free mileage.

Such features as 10 posts per side instead of 8, all-welded underframe, and unit-welded striker head and bolster center filler... set the a.c.f. Standardized Box Car in a class apart.

Proved in many miles of rugged service this box car is built for use on *all* of America's Railroads. Ask your a.c.f. Representative to give you all the facts on this outstanding design.

a.c.f. 2 section corrugated ends—thicker at bottom for strength where needed. Sectional replacement is added advantage.

Riveted seam caps and special assembly technique assure a roof that's long-lasting and leak-tight.

why spend money on a spent box car

ridiculous, of course! Nobody would intentionally spend money this way when *all* factors are considered. It may come under the title of "False Economy" or "let's make this one do for another year". This is where the Railroad man's sixth sense—"when to buy"—can come in mighty handy.

TO BUY OR TO BUILD?

Consider for a minute a.c.f.'s vast assembly line techniques and facilities... the standardized cars that roll off—each with completely interchangeable parts. Or consider the overhead involved (and which must be maintained) when a first class car is built. Good reasons, we believe, to buy rather than build.

In other words why duplicate a.c.f.'s investment—in shops, in tooling, in personnel. For more information, call your nearest a.c.f. representative. He'll explain in detail why a.c.f.-built cars give greater maintenance-free mileage at the lowest practicable cost. American Car and Foundry Company, New York · Chicago · St. Louis · Cleveland · Philadelphia · Washington · San Francisco

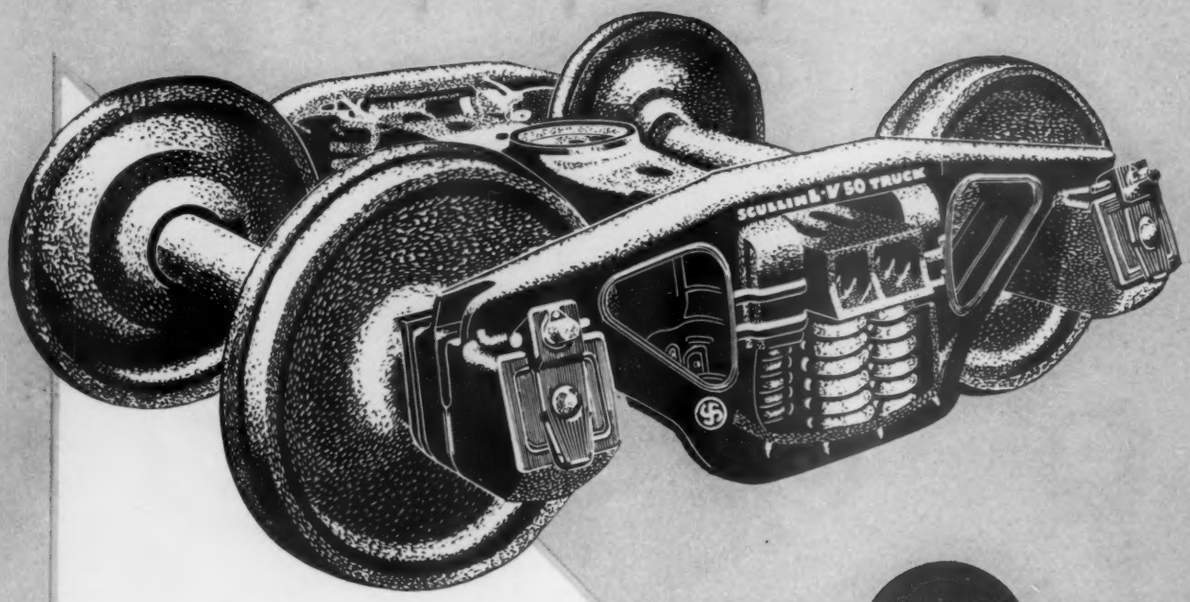
SPECIFICATIONS

50-TON steel-sheathed, wood-lined a.c.f. Standardized Box Car

Length over strikers	41′-10″
Length over end sills	40′-8¼″
Length inside	40′-6-1/16″
Length over running boards	42′-6″
Width over side sills	9′-9⅝″
Width over side plates at eaves	9′-3⅜″
Width inside	6′-0″
Height rail to center line of coupler	2′-10½″
Height rail to top of floor	3′-7¾″
Height inside	10′-6″
Center to center of bolsters	30′-10″
Cubic capacity	3898 cu. ft.
Estimated light weight of body	30,600 lbs.
Estimated light weight of car	46,100 lbs.

a.c.f. CAR BUILDERS TO AMERICA'S RAILROADS

ADS



LATERAL VERTICAL
50
CUSHIONED MOTION

SCULLIN L-V TRUCKS

THE SMOOTHEST TRAFFIC-BUILDERS BETWEEN LCL AND YOUR RAILS

Photo Courtesy Southern Railway System

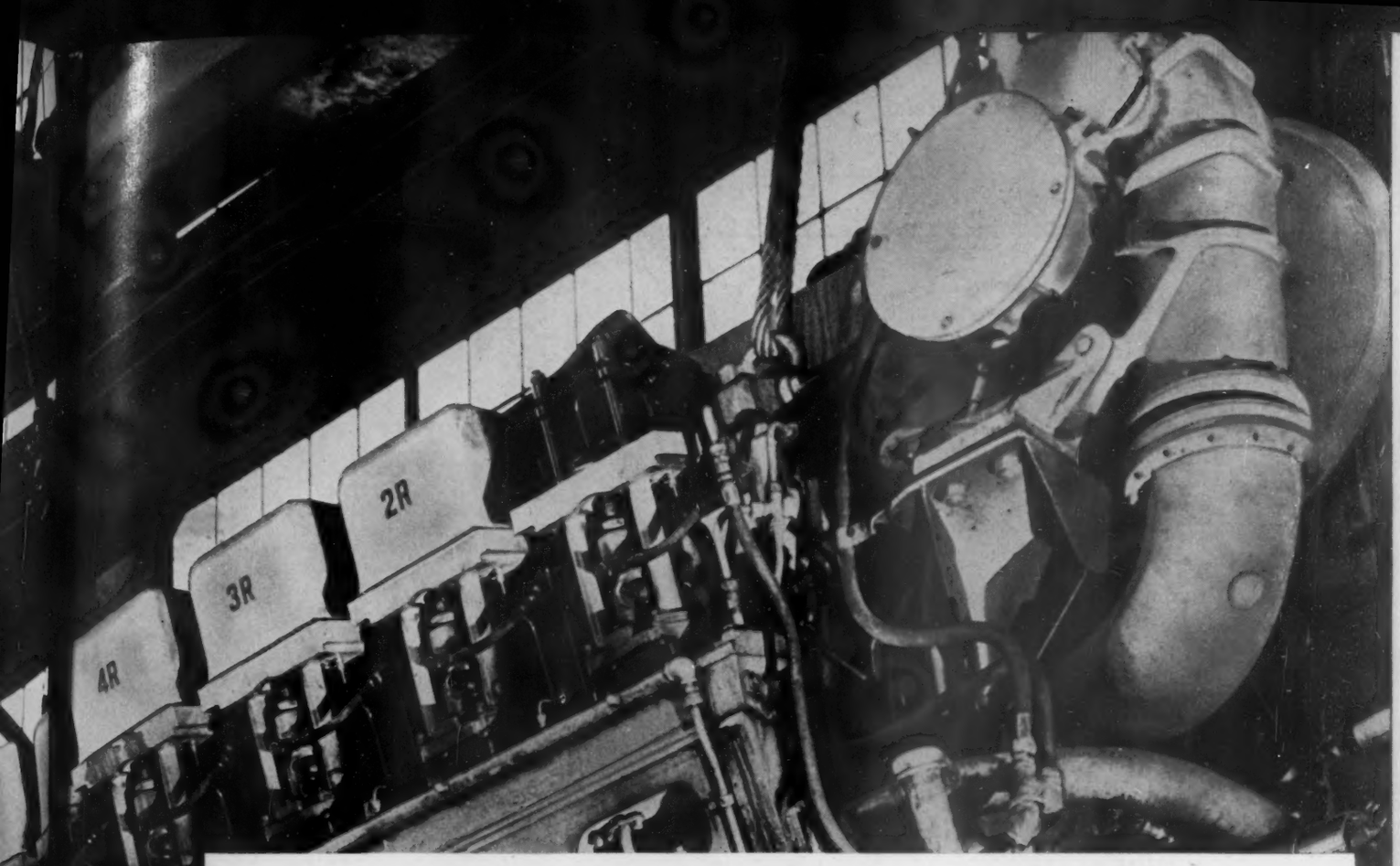
STEEL CASTINGS MANUFACTURER

SCULLIN STEEL CO.

SAINT LOUIS 10, MISSOURI

NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

4R
1R



Expanded service facilities offer increased savings to railroad customers

Alco's Factory Rebuild Service, augmented by extensive new tooling and enlarged production staffs, now offers customers a faster, more economical diesel-engine repair service at its Auburn, N.Y., plant.

Engine repair work gets priority at Auburn . . . locomotives are back on the job–*back earning*–with minimum loss of time. Repairs are handled on a full-time production basis, with resulting savings passed on to the customer. All repaired, rebuilt, or reclaimed engines and parts are restored to full performance standards and returned to service with a warranty equal to that given for new engines and parts.

Take advantage of this improved diesel-engine repair service . . . keep your Alco-GE locomotives operating at "original equipment" efficiency and capacity. Your nearest Alco-GE locomotive representative will give you full information.

PRECISION TESTING ASSURES PEAK PERFORMANCE

Balancing of the turbocharger rotor assembly is only one of the many precision tests performed as a regular part of Alco's Factory Rebuild Service. These tests, conducted by experienced craftsmen working with the most modern facilities, assure "original equipment" performance on all Alco-repaired engines and parts.

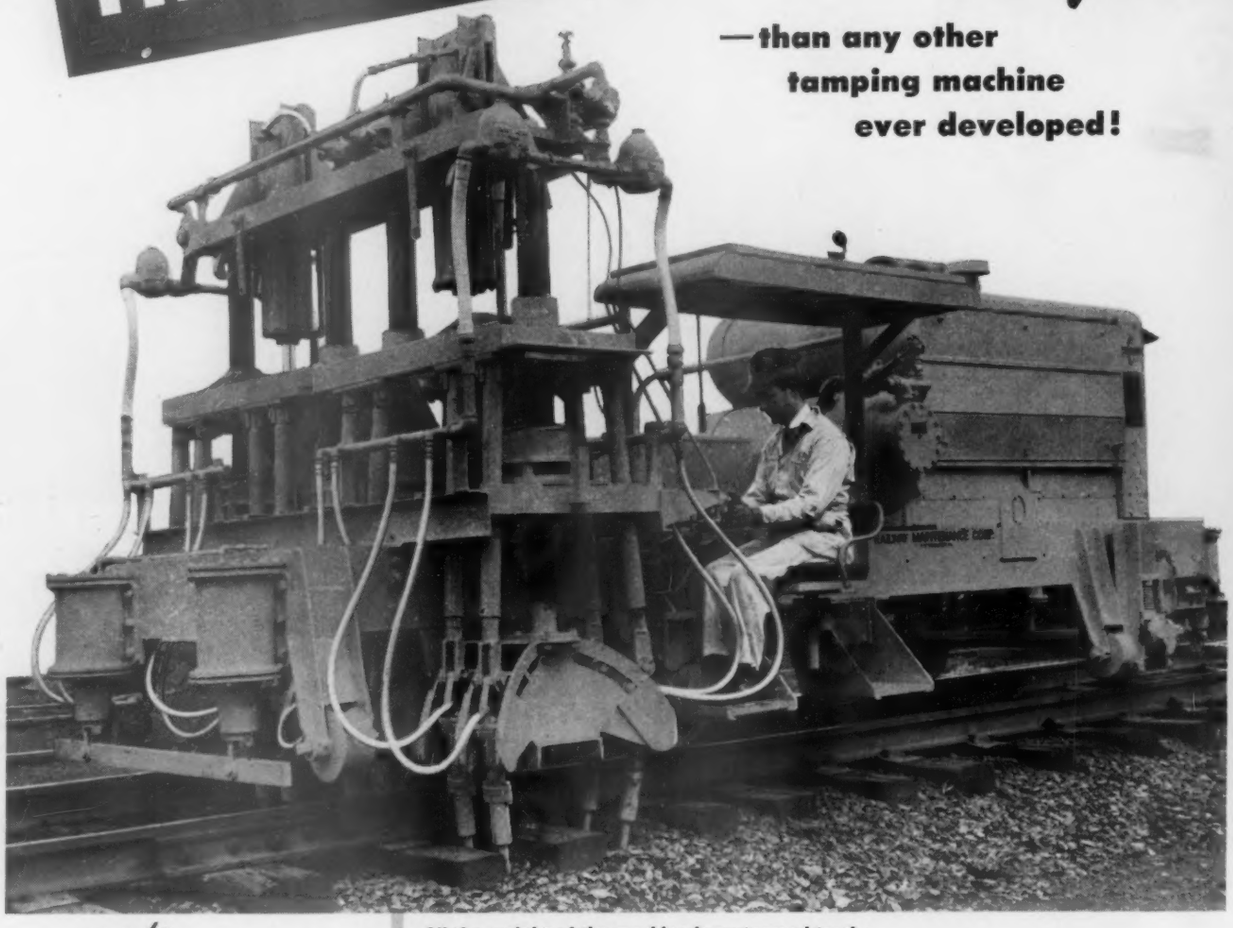
AMERICAN LOCOMOTIVE and GENERAL ELECTRIC

The McWILLIAMS

TIE TAMPER

Does MORE for you

—than any other tamping machine ever developed!



All the weight of the machine is on tamped track.

With its operating rate of 350 to 450 feet/hour of perfectly tamped track, this is by far the most versatile and efficient tamping machine ever developed. The unique split-head design permits raising of joints and spot surfacing, as well as out of face general raises. It tamps all kinds of ties efficiently, including those which are slued. As added premiums, this machine is the easiest of all tampers to maintain in the field, and it has a compressor which can be used for operating a wide variety of air equipment used in track maintenance.

WRITE FOR DETAILS

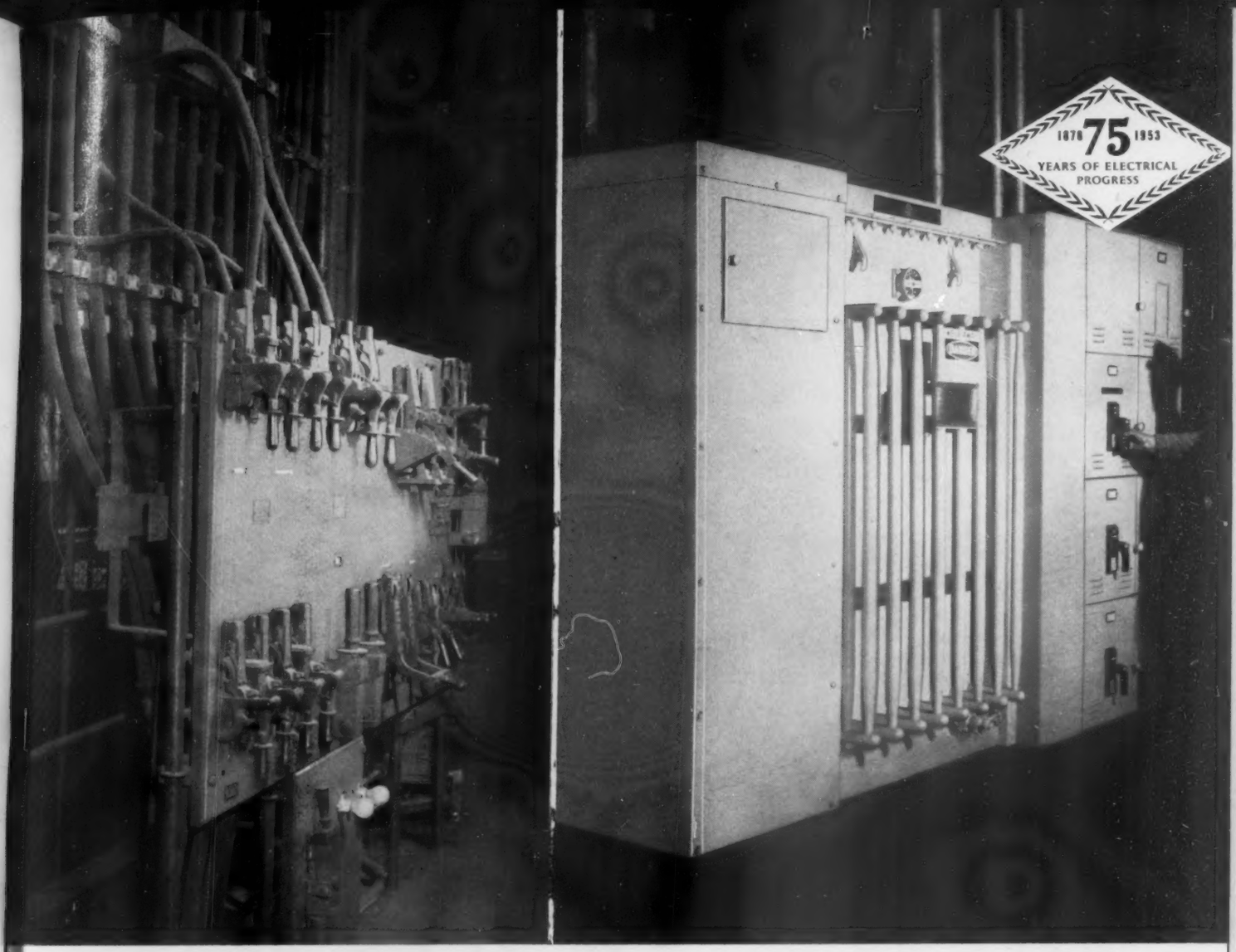
Railway Maintenance Corporation

PITTSBURGH 30, PA.

Why **IT WILL GIVE YOU BETTER MAINTAINED TRACK**

This is the only tie tamper which compacts the ballast firmly *under the rail*. Operating by precisely controlled pressure, it uses 16 air tools to tamp under the rail and for a predetermined distance outside and inside the rail. Since it causes a minimum of operator fatigue, you can be sure of efficiently tamped track throughout the entire working period.

DESIGNERS AND MANUFACTURERS OF: McWILLIAMS MOLE AND SUPER MOLE . . . McWILLIAMS TIE TAMPER, CRIB CLEANER AND BALLAST DISTRIBUTOR . . . R. M. C. RAIL JOINT PACKING



Obsolete switchboard equipment and open framework have been replaced by modern metal-enclosed G-E load-center unit substations.

Nickel Plate Road Speeds Modernization With Compact G-E Unit Substations

The Nickel Plate Road, Brewster, Ohio—two compact G-E 300-KVA load-center unit substations are helping the Nickel Plate modernize its locomotive repair shop here. The Nickel Plate replaced its old open-type switchboard with compact G-E unit substations located near the center of the load. These new substations saved valuable floor space for the Nickel Plate and eliminated nearly 3 tons of low-voltage cable.

G-E substations are easily installed. They arrive in two or three sections, ready to bolt together and connect to power and feeder cables.

By installing G-E unit substations in your operations, you too can gain important savings by minimizing voltage spreads throughout your shop, and reducing motor heating, lamp burnouts, and speed variations in your machine tools.

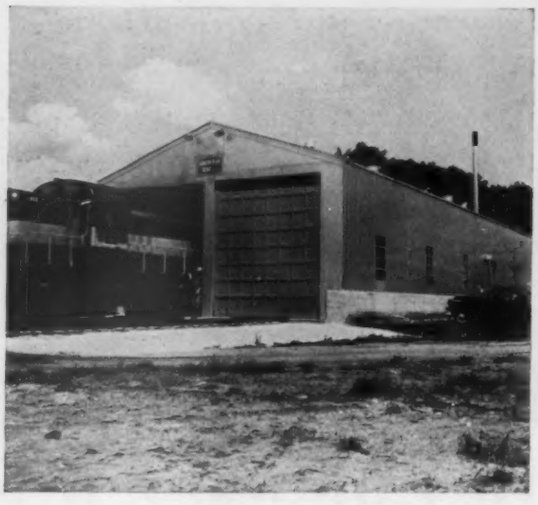
Investigate today the economy and improved service that metal-enclosed G-E substations can give your railroad installations. For further details, consult your nearest G-E representative. General Electric Company, Schenectady 5, N. Y. 152-39

You can put your confidence in—

GENERAL ELECTRIC

ARMCO BUILDINGS wear

business suits or overalls



These are Armco Steel Buildings. One is a combination passenger and freight way station; the other a Diesel engine house.

Different though these standard buildings are in application, both are of STEELOX construction and basically the same. With unique STEELOX panels you get structural support and smooth exterior in a single unit. Armco Buildings are weather-tight, strong, durable. And remember, steel won't burn.

A small crew can quickly erect an Armco Building in a couple of days. Labor costs are low. And even after years of use, your Armco Steel Building can be dismantled and re-erected on a new site without loss of material.

Armco Steel Buildings are available in a wide range of sizes for use on permanent or temporary sites. Write us for detailed information. Armco Drainage & Metal Products, Inc., 1953 Curtis Street, Middletown, Ohio. Subsidiary of Armco Steel Corporation. Export: The Armco International Corporation.

Armco Steel Buildings

ARMCO

EMERGENCY!

THE AIRCO ACETYLENE FLARE floods your operations-after-dark with a wide, brilliant field of light*... and acts as an ideal beacon in emergencies. This low-cost unit is readily adaptable for night-time bridge and track repairs, flood conditions, highway and construction jobs — wherever light is vital! Each flare is equipped with a sturdy windscreen — for dependable illumination *when* you need it . . . *as long as* you need it. Developed in part by a prominent railroad system, hundreds are now in active service. If there are times when your operations require a reliable source of light . . . when power is unavailable . . . contact your nearest Airco office!

**With the flare placed 8 feet above the ground, you can read fine print in a newspaper — 75 feet away!*

AIRCO®

AIR REDUCTION

60 East 42nd Street • New York 17, N. Y.

Air Reduction Sales Co. • Air Reduction Magnolia Co. • Air Reduction Pacific Co.

Represented Internationally by Airco Company International

Divisions of Air Reduction Company, Incorporated

at the frontiers of progress you'll find

AN AIR REDUCTION PRODUCT

OXYGEN • ACETYLENE • NITROGEN • CALCIUM CARBIDE • ARC WELDING AND INERT-GAS ARC WELDING EQUIPMEN
OTHER INDUSTRIAL AND RARE GASES • WELDING SUPPLIES AND ACCESSORIES • OXYACETYLENE WELDING AND CUTTING APPARATU

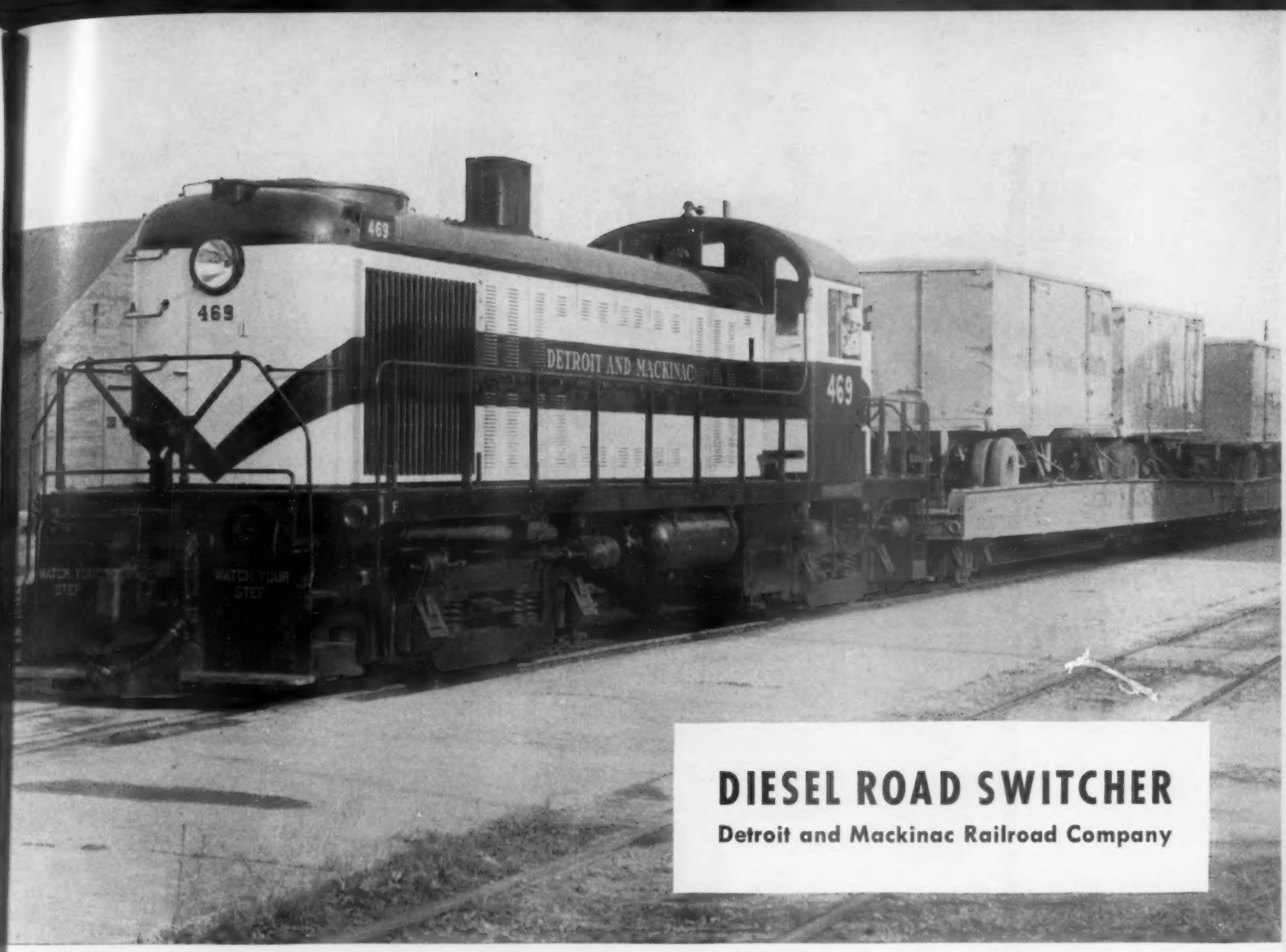
PEERLESS

PROTECTION

DON'T RISK today's high-priced lading . . . The H-I-B2, your PEERLESS protection against loss!

PEERLESS
EQUIPMENT
COMPANY

332 SOUTH MICHIGAN AVENUE
CHICAGO 4, ILLINOIS



DIESEL ROAD SWITCHER
Detroit and Mackinac Railroad Company

Hard-working road switchers on the Detroit and Mackinac railroad use...

STANDARD HD
TRADE MARK
Oil

● Alco-G.E. 1500 h.p. road switchers keep tonnage freights rolling on schedule over the Detroit and Mackinac railroad in northeastern Michigan. In this tough service, STANDARD HD Oil has supplied effective lubrication for these units. Used for over five years, it has given ample evidence of its ability to help keep maintenance costs low and availability high.

STANDARD HD is now used by over 70 railroads for all types of diesel service. Make this acceptance your basis for investigating the benefits offered by this superior heavy-duty lubricant. A Standard Oil Railway Department representative, through his extensive experience, can help you obtain more effective lubrication. For his services, write Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.

STANDARD OIL COMPANY STANDARD *(Indiana)*

even acid didn't scar this car's coating!

After eleven months spent in carrying 35-40% muriatic acid, this car showed no deterioration of metal and no effect on its coating, except some loss of luster.

That's because it was covered with a system of coatings based on VINYLITE Brand Resins. Conventional paints on other cars in the same service showed severe deterioration after only six to eight months!

You find stories like this wherever you find car coatings based on VINYLITE Brand Resins. Tough and inert, these paints resist weather, chemicals, oil, corrosive atmospheres, salt water. Properly formulated and applied, they stick fast to metal, concrete, or masonry—despite abrasion, vibration, and thermal shock. They're easy to apply, and their drying speed gets cars back into service fast.

Coatings based on VINYLITE Brand Resins come in a wide range of colors – flat, glossy, or semi-luster. They're odorless and non-contaminating.

Learn how they can save you money with their durability, long service life, and variety of uses.

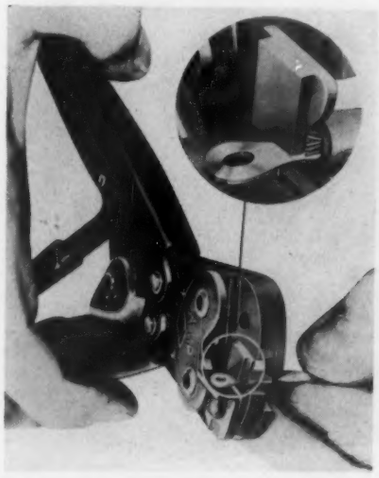
For a list of suppliers write to Dept. PE-73.

Data on COROGARD coating system, based on VINYLITE Resins, courtesy Minnesota Mining & Manufacturing Co., 411 Piquette Ave., Detroit, Mich.

Vinylite
BRAND
RESINS

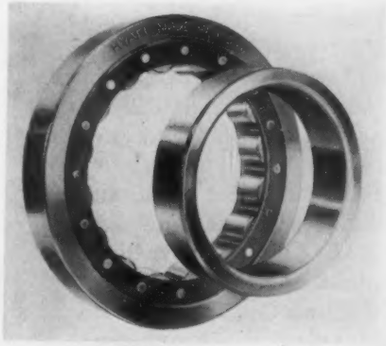
TRADE MARK

BAKELITE COMPANY
A Division of
Union Carbide and Carbon Corporation
UCC
30 East 42nd Street, New York 17, N. Y.



Solderless Terminal Crimper

An easy and accurate means of crimping solderless terminals to wires having extremely thin-walled insulation has been announced by Aircraft Marine Products, Inc., Harrisburg, Pa. The AMP Certi-Crimp hand tool contains a wire positioner called a Shur-Stop, which stops the stripped wire in its proper place and prevents the insulation from being inserted in the terminal barrel. In addition to the "Shur-Stop," a terminal guide is said to orient the terminal correctly in the tool jaws, and a terminal barrel-stop positions the terminal at the proper crimping area.



Pinion End Traction Motor Bearing

Hyatt Bearings Division of General Motors Corporation, Harrison, N. J., is now in production on a newly designed pinion-end motor armature bearing for diesel locomotive service. The new design emphasizes a roller-riding cage to eliminate rubbing contact between race flanges and bearing cage. The cage is assembled by a new Hyatt process which is said to insure its permanent rigidity under severe operating conditions. The cage and rollers can be removed from the bearing as a unit to permit complete inspection of all operating surfaces.

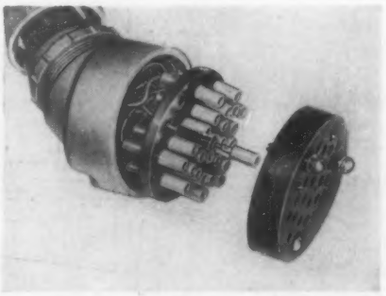
While retaining the large load-carrying capacity of former designs, the manufacturer states that the new bearing offers greater life expectancy.

Jumpers for Diesels

The Pyle-National Company, Chicago 51, has introduced a new diesel locomotive control jumper with 16-21-24 or 27 poles.

The new jumper, designated WWPAJ, is said to combine the flexibility and resiliency of the all-rubber head jumper with the light weight, strength and individual parts renewability of the all-metal head jumper.

A rubber compound unaffected by oil, heat and cold and possessing high arc resistance is used for a resilient shock-absorbing face plate which will withstand severe blows without cracking or becoming out-of-round. Rubber is also used for a flexible, fabric-reenforced rubber conduit with long tapered, integrally molded grommets



on each end which encloses the individual conductors.

Resilient rubber sleeves serve to prevent abrupt flexing of leads and avoid current creepage at the wire terminals without the use of sealing compound. An aluminum alloy plug housing with lock cap and lock nut, in addition to reinforcing the assembly, makes complete dismantling possible.

All strain is confined to the exterior components including the rubber conduit, tapered grommets and metal plug housings. No strain is imposed on the interior current carrying conductors and contacts.

The metal plug housing also includes an integral damage-proof polarizing guide lug and a positive locking seat for the receptacle cover hook.

THE "XPEDITER," with a capacity of 800 lb., is the latest addition to the materials handling equipment produced by the Kalamazoo Manufacturing Company, Kalamazoo, Mich. The maximum speed of the unit is 9 m.p.h. forward, and 7 m.p.h. in reverse. Forward, reverse and speed are controlled by pressure of the operator's foot on a single pedal. The fork truck is offered in six models with either hydraulic or manual lift.

Inspected after 14 months of service, CARCLAD finish on cars used in bulk cement hauling showed no signs of weathering or rust. Film remained unbroken despite hammer blows.

This tank car hauling phosphorus is another example of manufacturers and railroads turning to CARCLAD for protection under severe corrosive conditions of service.

STOP PAINT-EATING by corrosive cargoes

CARCLAD* protects for years instead of months!

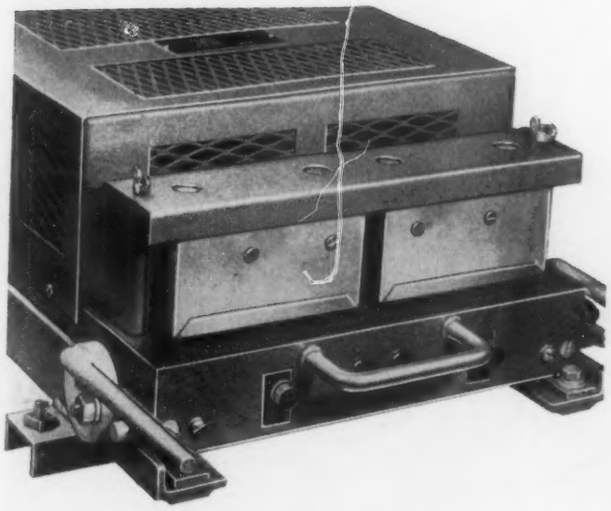
Now you can keep equipment used for corrosive cargoes in service longer between repaints. CARCLAD ends the need for costly refinishing schedules of covered hopper cars, tank cars and similar equipment. It provides new, long-life resistance against acids, alkalies, sulphur, phosphate, alcohols and other corrosive materials. Even "splash" from aromatic hydrocarbons, ketones and esters will cause no permanent damage to the finish.

CARCLAD is not just another "acid-resisting" paint—it's a totally different system. Not only does it protect against corrosive elements—it gives longer lasting protection and good appearance. It has the weather durability of finest enamels, and resists peeling, chipping or "banging" off even when pounded with sledge hammer blows. It withstands repeated scrubbing and washing with strong cleaning compounds and solutions. Records of cars in service five years and more, without need of refinishing, are proof of its performance.

Actual results of tests are available to interested railway supervisory or executive personnel. Ask for copy of 8-page CARCLAD brochure B-759, which includes application recommendations—write The Sherwin-Williams Co., Transportation Division, Cleveland 1, Ohio. *Trade Mark

SHERWIN-WILLIAMS

RAILWAY FINISHES



This is the Vibrator Converter that . . .

☑ **SAVES 60%**
on cost of initial installation

☑ **SAVES 50%**
each year on maintenance

☑ **Services itself en route**

Patented C-D dual vibrator circuit with instantaneous automatic switch-over assures uninterrupted radio communications en route.

☑ *field-tested and approved by over 50 leading railroads**

*Complete list on request.

CONSISTENTLY CORNELL-DUBILIER DEPENDABLE
VIBRATOR CONVERTERS WITH RAILROAD DEPENDABILITY
by the makers of world-famous C-D capacitors

PLANTS IN SOUTH PLAINFIELD, N. J.; NEW BEDFORD, WORCESTER AND CAMBRIDGE, MASS.; PROVIDENCE, R. I.; INDIANAPOLIS, IND.; FUQUAY SPRINGS, S. C.; AND SUBSIDIARY, THE RADIART CORP. CLEVELAND, OHIO

Benchmarks and Yardsticks

THERE ARE ALWAYS SOME JOBS that need doing, but that are nobody's routine assignment. Nobody's boss delegates these jobs to him. Motivated either by intense interest or a sense of duty, or both, a fellow assigns himself to these jobs—either that or they don't get done. There's usually no increase in income—at least, nothing certain or soon. More often than not, they entail as much wrangling and wear and tear on the participant as the kind of work people get paid to do.

Usually known (and quite accurately) as "thankless jobs," these activities include almost everything in the way of introducing innovations in the ways jobs are done. Shaking people out of traditional ways of doing things is always hazardous. The man who agitates for changes will usually arouse more opposition than applause, and, then, maybe what he advocates does not work out to everybody's satisfaction—in which case the innovator not only loses the approbation of the traditionalists, but even those who are friendly to innovation and experiment may put him down as a somewhat misguided zealot.

Every selfish and rational motive operates, thus, to restrain a man from breaking over the traces and trying to do things in new (and what he hopes may be better) ways, and from taking on "extracurricular" labors. Still, there are a few people who persist in operating like this; and it is fortunate that there are because, without them, there would be no progress.

Not everybody, of course, who is willing to make unpaid speeches—or work for the support of some religious or educational institution, or risk his popularity with his colleagues in advancing hitherto untried experiments—is moved by unselfish considerations. Sometimes these people are after the limelight rather than something useful to other people. It isn't hard, though, to distinguish the real doers from the mere credit-seekers.

Not all of us are endowed by nature for roles as originators and operators of what are known as "crusades." All of us, however, can with a little effort distinguish the genuine crusaders from the artificial kind; and can give the real ones the support of our respect, even in those cases when we may not happen to agree with all they are after.

Human society, including the railroads, would stagnate without the crusaders. Their efforts are hard enough and discouraging enough, even when they know they have the respect and admiration of their colleagues. Encouraging such men to retain their zeal is simply to cast a vote in favor of improvement and against retrogression. It should be the minimum requirement for full-fledged membership in any community. J. G. L.

YOU CAN BET YOUR LIFE ON

Model 10

Automatic

SIGNALS

It's a *safe* bet, because there's never any risk at a railroad-highway crossing protected by famous Model 10's.

Day and night . . . year-in, year-out . . . in any kind of weather, Model 10 Automatic Signals operate flawlessly. They never fail to warn motorists and pedestrians of approaching trains—never fail to block traffic until all danger is past.

Never fail? Look at the record: During the past seventeen years, thousands of these signals have been placed in service on a hundred railroads, and *not a single accident has ever occurred as a result of operative failure on the part of the signals.*

Traffic engineers say . . .

Model 10 Signals provide safety comparable to grade separation, yet cost only a fraction as much. What's more, Model 10's offer an immediate solution to the grade crossing safety problem. There's no "involved" legislation necessary to their installation.

Write for "Grade Crossing Safety Is Your Business." Ask for brochure RA253

WESTERN RAILROAD SUPPLY COMPANY

*Pat. in the U.S.A. and in Canada

General Offices and Factory:
2428 SOUTH ASHLAND AVENUE • CHICAGO 8, ILLINOIS

COMMON CARRIERS SILENT UNDER DISCRIMINATORY TREATMENT

Common carriers—railroad, highway and air—have a common interest, of which they appear to be much less acutely aware than they are of their divergent interests. This common interest is, of course, the disconcerting rate at which contract and private carriers are growing—and the hindrances which law and regulation have installed to prevent the common carriers from meeting this wholly unfettered competition. This is not to say that there is not a legitimate place in the transportation picture for private and contract transportation, but it does not need discriminatory favors in order to thrive where it has an "inherent advantage."

There are more carriers which wear the "common carrier" label than actually belong in that category. The railroads comprise the zenith of the classification—because each railroad passenger route receives and discharges passengers at all communities of any size on that route and all freight routes accept all kinds of freight traffic at all communities located on such routes. There are many bus and truck lines which serve only specified communities along their routes, and do not provide service at intervening points. There are, to be sure, other bus and truck lines which do offer a comprehensive service along the routes they traverse. The major air lines serve only the larger communities. Some so-called common carriers offer transportation for only one selected commodity—e.g., automobiles—and are not common carriers at all except in the legalistic sense. There are relatively few genuine common carriers among water carriers—most of these vessels specialize in some one commodity and are wholly exempt from regulation.

Common Carriers Predominate . . .

With all these qualifications, the actual common carriers which are accurately so described constitute the country's overwhelmingly predominant means of freight transportation—and provide almost all passenger transportation, except that of private automobiles. The nation could not exist at anything approaching its present economic standards without these carriers; and private or contract carriers could not supplant them without appalling sacrifice in national wealth and income. The private and contract carriers do not offer to supplant the common carriers—they merely elect to pick and choose some of their traffic (usually the most attractive portion), and thus increase the common carriers' unit costs and make their rates higher than they would otherwise have to be.

The Wall Street Journal recently surveyed the manufacturers of heavy truck-trailers, and reported that an increasing ratio of the volume of production of these manufacturers is being sold, not to carriers for hire, but to producing companies which are now hauling their own products and raw materials.

. . . And Could Improve Their Position . . .

Why shouldn't the manufacturer do his own hauling if he can do it cheaper than a common carrier will do it? That is a natural question and a fair one. The chances are that, in practically every case, the common carrier *could* carry the traffic just as cheaply—only that the common carrier is forced to base its rates on *average conditions*, and is not permitted by the regulators to vary from standard rates in favor of traffic which can be handled under peculiarly favorable circumstances. The common carriers are, thus, effectively prevented from bidding for traffic that, given freedom from regulatory restraint, they might handle even more cheaply than the private carriers can do it.

What can be done to enable the common carriers to retain that share of the total traffic to which they have a reasonable economic claim, and which they have lost

by purely arbitrary legislative and regulatory discrimination? This discrimination serves no discernible public advantage. It is, on the contrary, undeniably injurious to all common carriage, which is the kind of transportation on which the bulk of the nation's traffic must continue to depend.

. . . *If They Worked Together* . . .

The first thing the common carriers *might* do is to set aside a small part of the time and energy they now spend in scrapping among themselves to do a little contemplation and general education on the peculiar public interest being served by the common carrier function. (The intercarrier debate on points of legitimate difference of opinion need not be ended or even suspended in order to do some collaborating on a common objective. There would be mighty little joint action on anything if all collaborators, in order to work together for one goal, had to agree on all possible issues.)

At the recent meeting of the Transportation Association of America in Chicago, Executive Vice-President Donald Conn said:

"The economic stability of common-carrier transport does not depend on regulation alone. Congress cannot regulate economic law nor can it prescribe a division of the total traffic between common, contract, unregulated for-hire, and private transportation. What it can do is to place common carriers on a basis of competitive equality as nearly as possible—but that is only part of the story. There is a great public responsibility to common carriers, if it is expected that they will continue to assume costly liabilities from which their competitors are largely exempt, and still remain in private ownership. World War II demonstrated that high volume of traffic is the primary answer to the common-carrier problem—over the long-term. If the leaders of enterprise are to do their part to carry out the Declaration of Policy [of Congress] they must weigh carefully the implications of the increasing divergence of tonnage to the unregulated carrier and the effect of private transportation which is growing by leaps and bounds. I speak of traffic which is truly competitive—rather than the areas of distribution where 'inconvenience' is the prime factor."

That brief statement could be expanded without many more words into a pretty comprehensive and persuasive argument in behalf of the common carriers—a doctrine which, if honestly and earnestly expounded, would eventually carry a lot of conviction among shippers, regulators and legislators. Once that conviction is widely accepted, it should not be too difficult to achieve, for one thing, the removal of the utterly indefensible excise taxation which patrons of common carriers now pay and from which private transportation is exempt.

. . . *To Arouse the Public Conscience*

If the public conscience were sufficiently awakened to comprehend the injustice of discriminatory taxation of common carriers, the same attitude would find it hard not to condemn with equal finality all other discriminatory treatment of this indispensable public service. It is just plain paradox that a people with egalitarian ideas should heap burdens on a public servant who treats all comers reasonably and exactly alike—and should bestow its favors, instead, on a highly selected few.

In the field of education, there's a great hullabaloo going on against extending any public favors to private schools—such favors, it is insisted, should go exclusively to the schools which accept all races, creeds and social categories indiscriminately. In transportation an exactly contrary policy is being pursued—for no reason at all, apparently, unless it be the failure of the common carriers to complain.

RAILROADS UNJUSTLY BLAMED

"The railroad industry, like all other human institutions, is not perfect, but it is sometimes accused of sins for which it is not responsible.

"For example, only recently John L. McCaffrey, president of International Harvester Company, chided the railroads for an inadequate supply of flatcars. He charged that the railroad industry has gone backward in its flatcar supply for the last 10 years, the supply having dropped 20 per cent since 1942. He said that shippers resorted to trucks because they couldn't get flatcars when they need them.

"'You didn't lose it [freight traffic] because of a rate differential. You didn't lose it because some competing form of transportation was preferred,'" he charged.

"This industrial executive implied that the railroads were responsible for the flatcar shortage. He overlooked the fact that out of the 10 years during which flatcar production dropped, half of that time was during two wars, World War II and the Korean War, and that railroad management has consistently warned that material allocations for freight car manufacture were inadequate to take care of traffic needs.

"It is hard to avoid the suspicion that these sharp words for the railroad industry are used to justify the guilty shippers' conscience for the steadily increasing use of other forms of transportation which may yield short term advantage for shippers, but materially damages the most efficient, all-purpose, privately owned transportation system ever devised.

"The railroad industry is a vital industry in peace or war and should have the consistent support of shippers if it is to adequately serve the needs of our economy. High volume traffic is a necessity for the railroad industry and crowded, danger-ridden, wornout, broken and damaged highways should be a sufficient reminder to shippers that, in the long run, rail transportation is by far the cheapest and the best."—*An editorial from The Railway Clerk, February 1, 1953.*

Donald Sims

Two Union Pacific gas turbines standing on a servicing track at Green River, Wyo.

How Gas Turbines Perform

On the Union Pacific

Answers to questions on road operation, fuel consumption, servicing, maintenance and availability are based on 365,000 miles from seven locomotives

How well the General Electric gas-turbine locomotives are doing on the Union Pacific is perhaps best answered by the fact that the road has recently ordered 15 additional units. Specific answers to details of operation and maintenance are necessary, however, before the economic aspects of this type of power for other roads can be appraised. *Railway Age* therefore has posed a number of questions bearing on the operating economics of these locomotives, the answers to which are based on revenue services of 21 months with the original experimental unit and from five to eleven months with the six production units delivered between January and August 1952:

Q. What has experience shown to be some of the high spots of gas-turbine locomotive operation?

A. High availability; they move heavy trains fast; can be turned quickly on a turntable; are quiet and well-liked by crews, and, being a single unit, require less enginehouse and cleaning time and expense than a diesel of comparable horsepower.

Q. Where has the experience been accumulated?

A. Principally between Ogden, Utah, and Green River, Wyo., a 176-mile run with elevation varying from 4,300 to 7,200 ft. The ruling grade is .82 per cent westbound over which the locomotives handle up to 5,000 tons. Eastbound the first 65 miles out of Ogden is a 1.14 per cent helper grade.

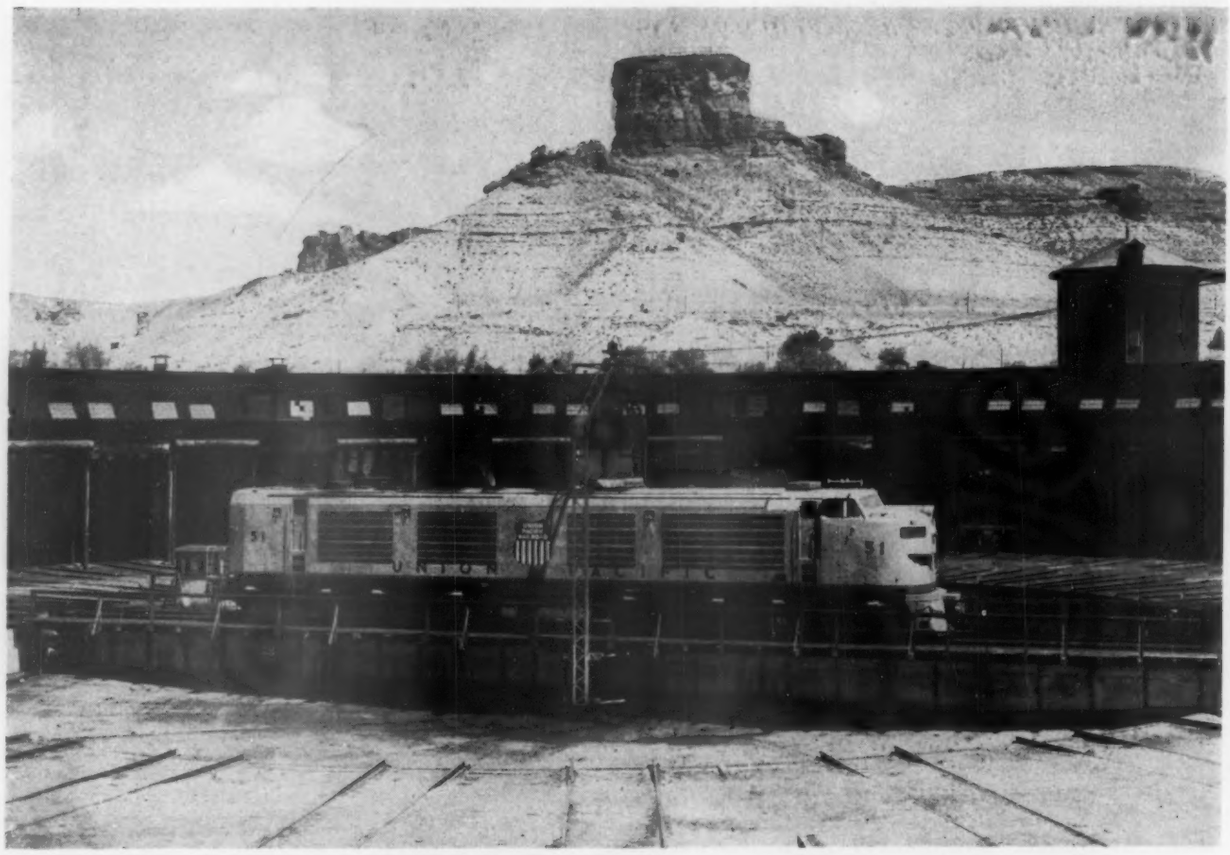
Q. How much revenue service has been accumulated?

A. Totals for the seven locomotives to Dec. 1, 1952, are 2,083 trips, 365,410 miles and 15,309 turbine-hours.

Q. Are they assigned to important trains?

A. Yes, there is no hesitation in doing this. Reliability, as well as availability and operating cost, has been quite satisfactory.

Q. How does road performance compare with diesel?



The short (83½ ft.) overall length of the six single-cab production units permits them to be turned easily on existing turntables.

Major parts such as the main power plant and the main generator assembly can be replaced without removal of other equipment.

Filters for turbine air intake were eliminated on one unit, the turbine air being taken in through the roof. Other air goes through the cab body filters.

A. The gas-turbine locomotives start about the same size train as diesels of comparable (4,500 hp.) rating, and compare favorably with a diesel in acceleration and train handling over the road.

Q. Has any draw bar trouble occurred?

A. No.

Q. Is 4,500 hp. output normally attained in service?

A. Yes, and more. At lower altitudes in cool weather the turbine puts out some 5,400 hp., and the electrical system is designed to handle this. The turbine normally produces a surplus of horsepower.

Q. How are the gas turbines used in conjunction with diesel locomotives?

A. The motive power pool for the district comprises the six production gas-turbine locomotives and about 40 diesel units. The gas turbines take the heavier trains, while diesel locomotives are made up of two, three or four units to match tonnage available on other trains.

Q. Any particular reason for this procedure?

A. Yes. The gas turbine is relatively inefficient with light loads, having a substantially higher fuel consumption per 1,000 g.t.m. than with a full-tonnage train.

Availability, Servicing and Repairs

Q. Has maintenance been much of a headache?

A. A glance at three months trouble reports shows that day-to-day maintenance work is comparable to what would be expected on diesel units, though of a different nature mechanically.

Q. What have been the principal sources of trouble?

A. These fall in three catagories—(1) "bugs" inherent in any new design; (2) high wheel tread and flange wear; and (3) fuel system equipment problems which arise from using the low-cost residual fuel oil that must be used for the gas turbine to compete with the diesel.

Q. How long does it take to service a gas-turbine locomotive?

A. About 45 minutes on the average from pit to ready track, although the servicing has been accomplished under pressure in 20 minutes.

Q. Do the gas turbines require or receive any special attention?

A. Formerly gas-turbine powered trains made an extra stop at the entrance to the terminals to pick up an inspector to expedite servicing. This is no longer done. The gas turbines are now handled under the same general procedure as other power.

Q. Are riders assigned?

A. No, only regular crews are on the locomotives.

Q. What has been the availability of this motive power?

A. Cumulative availability for all six units to October 1, 1952, is 80.6 per cent, which is considered good for a short run in this territory. The availability is also rising month by month as additional experience is gained and 90 per cent is considered a reasonable goal. On the experimental unit it was 70 per cent. Utilization has been 68 per cent, maintenance and servicing time 19.4 per cent. Monthly mileage is over 9,000.

Q. Have there been any power plant failures?

A. Yes—five that could be considered mechanically serious. There were, however, no injuries to personnel. The locomotives are considered very safe to operate or to work on.

Q. Have electrical maintenance problems been serious?

A. To date they have been comparable to what would occur on diesel-electric locomotives although more horsepower is transmitted through eight traction motors than through twelve in a three-unit diesel. It is somewhat early to give a final answer to this question as none of the traction motors has accumulated the 250,000 to 300,000 miles at which diesel traction motors generally require overhaul.

Engine crews have little difficulty running the gas turbines, as operation and controls are quite similar to diesels.

Power Plant Change-Outs

Q. How long does it take to change out a gas-turbine power plant?

A. An average of 48 hours, although the experience and training will reduce this time.

Q. When delivery has been made on the remaining four units of the order for ten, and of the 15 units in the new order, will more than one spare power plant be kept on hand?

A. Yes. Two spare turbines will be provided for protection of the 25 units to insure high availability.

Q. Has the life of parts been generally good?

A. Yes. There have been few parts failures. A few atomizing nozzles are replaced after each 50 hours of operation; combustion chambers are inspected after 100 hours, and some liners replaced at each inspection. These are the two more critical points from the standpoint of servicing.

Q. Has blade erosion been a problem?

A. No. The tendency is more toward the blade building up scale.

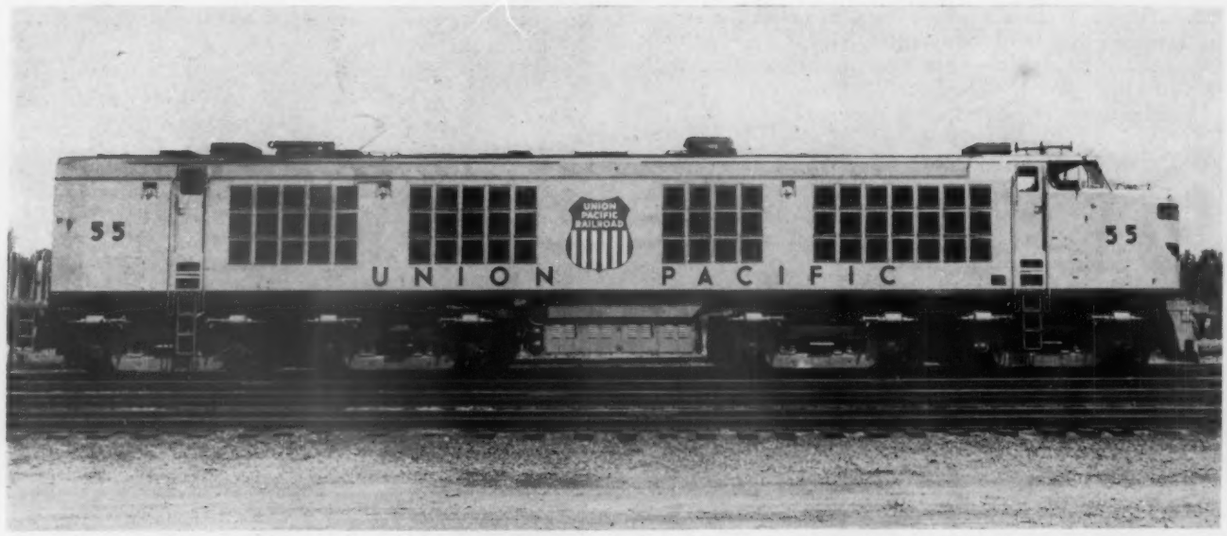
Q. Has this scale been a problem?

A. Not as yet. There is, furthermore, some reason to believe that scaling to a certain extent will improve the turbine performance because the scale will tend to form on a contour that matches the flow of the gases. In other words, the scaling might make the blade the shape it "wants to be."

Shop and Fuel Requirements

Q. Will special shop and servicing facilities be required for the 25 locomotives?

A. No. Gas-turbine locomotives can be serviced in present diesel enginehouses, and given heavy repairs in



Changes in the production locomotives from the experimental unit included elimination of one cab, increases in boiler water, diesel and residual fuel capacities, and single-switch turbine starting.

any good diesel shop that has a balancing machine for the rotor.

Q. With the B-B-B-B (4-4-4-4) wheel arrangement, can sharp shop and yard track curves be negotiated?

A. Yes, up to 21 degrees.

Q. Has personnel training raised any serious problems?

A. No. General Electric specialists have been on hand to assist in instructing maintenance personnel and no unusual training problems have been experienced. Engine crew training is no problem as operation is quite similar to the diesel.

Fuel Facts

Q. What types of fuel do the gas turbines burn?

A. They have been operated on regular diesel fuel, heavy diesel fuel, low-ash residual fuel and a special grade of desalted Bunker C fuel.

Q. What are they currently using?

A. Special Bunker C fuel treated to meet a ratio of vanadium, sodium and calcium requested by the manufacturer. It is moderately higher than regular Bunker C in cost.

Q. What is the fuel consumption?

A. Latest figures show 4.20 gal. per 1,000 g.t.m. and 14.77 gal. per mile—94.3 per cent of the fuel consumed is the special Bunker C, the remaining 5.7 per cent diesel fuel.

Q. What is the diesel fuel used for?

A. For lighting off the gas turbine and for the 250-hp. auxiliary diesel engine which drives a d.c. generator to furnish current for hostling and for the auxiliary electrical load when the turbine is shut down.

Q. How is the heavy fuel oil kept warm for atomization?

A. By a 1,600-lb.-per-hour Vapor steam generator, which also furnishes steam to keep the fuel-oil filters clean during operation.

Q. How can fuel oil filters be cleaned while they are in use?

A. Two filters are installed in the fuel oil line in parallel in a duplex housing. As one becomes clogged the flow is automatically transferred to the other filter, and the clogged filter is cleaned by steam. The transfer is made automatically when the pressure drop across the filter exceeds a predetermined amount (15 to 20 p.s.i.).

Q. Just how is the turbine started by the engine crew?

A. By a four-position switch in the cab. Positions 1 and 2 crank the turbine with the diesel engine, Position 3 transfers the turbine from diesel to heavy fuel, and Position 4 shuts off the diesel and hooks up the turbine ready to move the locomotive. From here on, control is through relays.

Q. Could the turbine be started on Bunker C oil in an emergency?

A. Possibly, but this has not been tried. The oil could be preheated using the batteries to supply steam generator control current. It would not be good practice, however, because the hot fuel oil would cool off and thicken upon entering the cold combustion chamber.

Q. How does the diesel engine start the main turbine?

A. Current from the engine-driven generator motors one of the four main generators coupled to the gas turbine.

Q. How is the changeover from diesel to residual fuel oil made?

A. The transfer is made gradually and automatically. Transfer-valve controls prevent use of Bunker C when it is too cold to flow properly, and automatically transfer the turbine back to diesel fuel if the heating system fails.

Q. Is the power plant shut down on the road when there is a long wait for a meet?

A. Yes, if the wait is to be 30 minutes or longer. While shutting down, a switch is always made to diesel fuel oil to clean out the line.

Q. How many traction motors are used for hostling by the diesel engine?

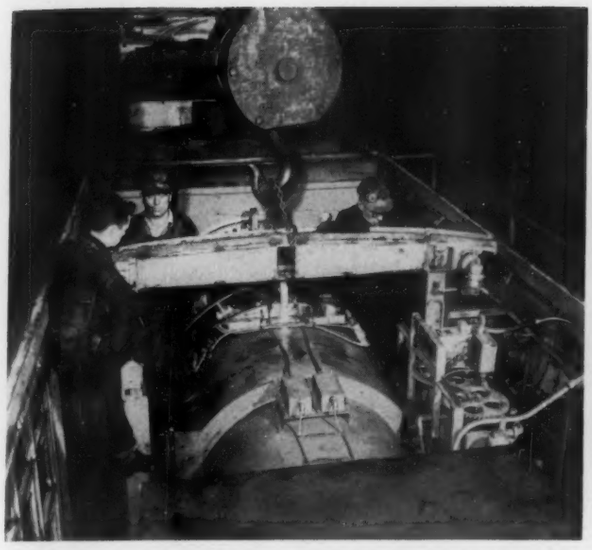
A. Two.

Q. Does the gas turbine use much lubricating oil?

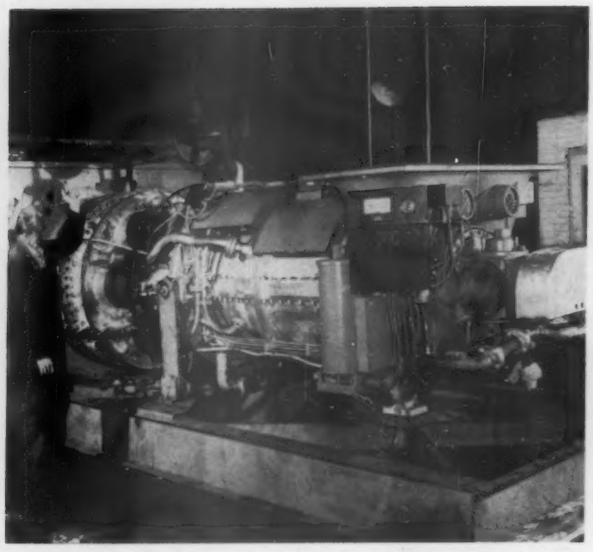
A. No. The consumption is almost nil. The small auxiliary diesel engine probably uses as much as the turbine.

Q. Does the lubricant require frequent change?

A. No, one reason being that there is no direct contact between the oil and the hot gases.



Maintenance and servicing time for the gas turbines is 19.4 per cent, giving an availability of 80.6 per cent. Utilization is 68 per cent.



A spare assembly is kept on hand to protect against turbine failures, of which there have been several. None has caused personal injury.

Q. What type of transmission does the gas-turbine locomotive have?

A. Each of the four main generators drives one pair of traction motors.

Q. Is there any connection electrically between the four circuits?

A. No.

Q. Is transition automatic?

A. Yes, in four steps—series; series-shunt; parallel; and parallel-shunt.

Q. Is throttle control similar to diesel?

A. Yes, except the throttle has 20 notches.

Q. Why 20 notches?

A. This was an original development and may be changed to an eight-notch throttle. Twenty notches were first incorporated to determine what speeds were needed. The eight-notch throttle will probably have two control positions (turbine at idle and turbine at full speed), with control of locomotive speed by varying the excitation.

Dynamic Braking

Q. Are dynamic brakes included?

A. Yes, although the main power plant must be in operation during dynamic braking to assure sufficient field current.

Q. Is not fuel consumption high while running at low load to furnish dynamic brake traction-motor field current only?

A. Yes, that is a characteristic of gas turbines. The saving in brake shoe wear and shock to train is approximately balanced by the fuel costs to operate the dynamic brake on descending grades. Diesel-engine-supplied field current would be necessary to obtain full economic advantage from the dynamic brake.

Q. With the large amount of combustion air required, is air-filter maintenance a sizable expense?

A. It is higher than on a diesel but will probably be reduced in the near future. One unit on test has the turbine intake through the roof unfiltered, the air going only through the silencer and its screen to the turbine. This arrangement not only eliminates filtering the turbine intake air but furnishes the air at a lower temperature, which increases the horsepower. Air for other purposes is taken in through side filters.

Q. Do the hot exhaust gases cause any difficulty in tunnels or underpasses?

A. None whatever.

Q. Are there complaints of noise in the cabs?

A. There were, but these have been eliminated by changes in the exhaust deflection.

Ideas Gained from Experience

Q. Do the six production locomotives differ much from the original unit?

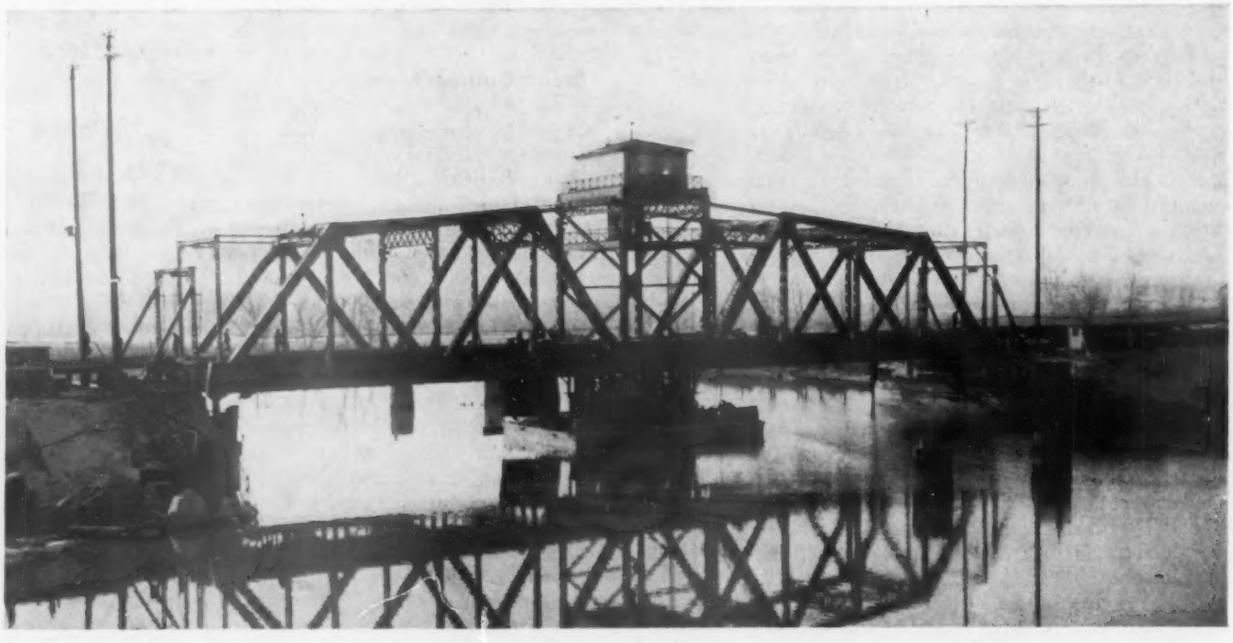
A. Basically the locomotives are the same, but a number of important changes were made. The new locomotives are of single-cab rather than double-cab design to reduce cost. Weight was increased from 532,000 lb. to 550,000 lb. (68,750-lb. axle load), and continuous tractive force to 105,000 lb. at 12.9 m.p.h. Wheel diameters were changed from 42 in. to 40 in., diesel fuel capacity increased from 600 to 1,000 gal., boiler storage water from 575 to 700 gal. and Bunker C fuel from 6,600 to 7,200 gal. Power plant starting control was modified so that now all starting operations are performed by the single four-position switch on the dash in front of the engineman. Series and parallel operation on the traction motors during hostling was included to allow higher hostling balancing speed. The main power plant, main generator assembly and other major assemblies were changed so that each can be removed and replaced without removal of other equipment. Ballast was added over the front truck and a manually operated power reduction switch included in the circuit to the front pair of traction motors to overcome slipping of the front truck.

Q. What are the present expectations on future gas-turbine locomotive assignments.

A. They will probably be used in conjunction with diesel power rather than to "gas-turbinize" a given division or district. Shops or servicing facilities would not have to be duplicated to operate both types of power—only fueling facilities. The big disadvantage to using gas-turbine power exclusively on one district would be that these locomotives are not efficient for handling light trains.

BEFORE: Linemen (on car at far right) are removing overhead power lines from the structure.

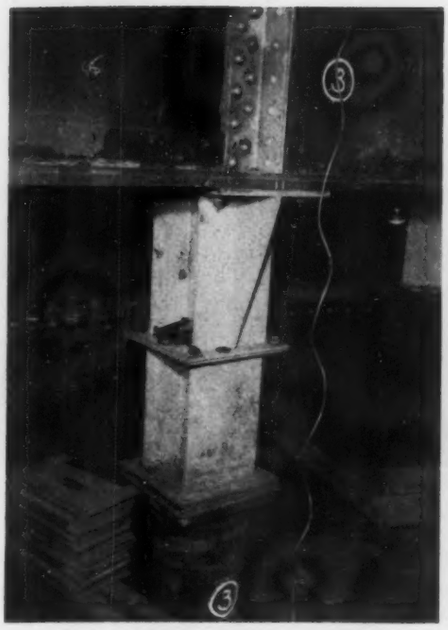
This Swing-Span Bridge...



AFTER: The bridge was raised 6 ft. Note difference in height of catenary portals at ends of span.

...Converted to Fixed Span

South Shore hurdles statutory and navigation restrictions to cut operating and maintenance costs



Showing blocking atop one of the four 500-ton jacks used at the center of the span. This view was taken just prior to the third and last stage of jacking when 4 ft. of blocking was in use.

When the bridge had been raised the full 6 ft., three layers of structural steel blocking had been placed at the center pier of the bridge.

To eliminate the expense and inconvenience of a 228-ft. swing span bridge, the Chicago South Shore & South Bend recently converted it to a stationary structure. Accomplished at an estimated cost of $100,000, the operation entailed the raising of the bridge 6 ft., as required by the Corps of Engineers, U. S. Army. While being raised the span was closed to railway traffic for a period of only 30 hours, during which passengers were transferred around the structure by a fleet of leased buses.

Several obstacles were encountered by the road in making the conversion. They date back to February 7, 1905, when President Theodore Roosevelt signed an act of Congress authorizing the construction, by the Kensington & Eastern Railroad, of a double-track through-truss center-bearing swing span over the Calumet river just south of 130th street, Chicago. The bridge was completed two years later—a 228-ft. structure spanning a 90-ft. channel on either side of its center pier.

Subsequently the K&E, which had been taken over by the Illinois Central, was leased in perpetuity to the Chicago, Lake Shore & South Bend, and is now operated as an electric line by that road's successor, the Chicago South Shore & South Bend.

In 1951, plans for converting the structure to a fixed span were submitted to the district engineer, U. S. Corps of Engineers. The basis for this action was the South Shore's desire to reduce operation and maintenance expenses. In addition, elimination of the approximately 5,000 annual movements of the bridge would greatly reduce delays to the 84 trains which operate over the span daily. A compulsory pantagraph drop order and a 40-m.p.h. speed restriction could also be eliminated.

Congressional Action Required

The plans for conversion were submitted to the Corps of Engineers for approval since the bridge spans navigable waters governed by federal regulations. On October 30, 1951, the road was advised that a construction permit could not be issued because the original act of Congress specified "swing span only." In due time a proposed amendment to the act was introduced in Congress, passed, and signed by President Truman (July 16, 1952). As amended the statute reads "either swing or fixed span . . . construction to be with approval of chief, U. S. Corps of Engineers." Thus, the first hurdle was overcome.

The South Shore then resubmitted the original plans to the Corps of Engineers. After considerable discussion between the three parties concerned (in addition to the South Shore and the Corps of Engineers, the plans had to be approved by the Illinois Central as owning company), it was decided that the conversion was permissible only if the span, in its fixed position, were no lower than the lowest existing fixed span across the river. To meet this stipulation, a raise of 6 ft. was necessary. A permit authorizing the work and the necessary closing of the river to traffic for one week was issued by the Corps of Engineers on August 22, 1952. The raising operation was scheduled for mid-October.

However, it soon developed that because of river traffic, the bridge could not be raised until after December 1. Consequently, the officers of the road had two possible courses open to them. They could postpone the project until the following spring, or they could do the work during the first week in December hoping that the weather would not be too severe. The latter alternative was elected—and as it happened the weather remained relatively mild.

Further Preparations Begun

On November 17, the eastbound track was taken out of service and all traffic over the bridge was routed over what was normally the westbound track. Two approach trestles were constructed, one at either end of

Illinois Central bridge forces are shown here securing stringers on the westbound approach trestle at the east end of the swing span.

Using power jack to raise the westbound track up to meet the approach trestle being built at the east end of the bridge after it had been raised.

Rail was laid on the previously constructed approach trestles for the eastbound track as soon as practicable in order that traffic could be resumed across the bridge.

The eastbound track was back in service only 30 hours after traffic had been halted. Westbound track (right) was reopened five days later.

the bridge, on the eastbound track, by Illinois Central forces. Some 10,000 cu. yd. of stone ballast were brought to the site and employed in raising the track to the level of the trestles. A grade of approximately 1 per cent was established on both approaches.

Raised in Three Stages

At 8:30 p.m., December 5, the bridge was officially closed and all South Shore pasesnger traffic was routed around the structure in buses. At 8:45 p.m., the raising operation began. The bridge was raised in three stages by four 500-ton jacks located at the center pier of the structure.

At 3:45 a.m. the next morning the raise was completed, and at 8:00 a.m. the same day river traffic was again permitted to pass beneath the span. There remained only the tasks of laying rail on the completed approach trestles, reinforcing the center of the span, and the restringing of power and communications cables before railroad traffic could be again passed across the bridge. At 2:30 a.m. December 7, this work had been completed and the eastbound track was opened to traffic. On December 11, at 11:01 p.m.—just 6 days, 2 hours and 31 minutes after the bridge was first closed to railroad traffic—the track raising and trestle work on the westbound track was completed and double-track operation was restored across the span.

Work Done by Three Companies

Track, power line, communication and signal work was done by South Shore forces totaling approximately 50 men.

The actual bridge raising work and the placing of new steel was done under contract by the American Bridge Company. Pile driving and trestle work was done by Illinois Central crews. Not a single injury occurred.

Three-Way Benefits Expected from . . .

Station Changes at Camden, N. J.

Modernized facility permits direct interchange with city subway; has made possible abandonment of ferry service; and could become link in future integrated transit system

New facilities for interchange of passengers with city transit lines; abandonment of Delaware River ferry service and of the old rail-ferry terminal; and a possible step toward an integrated transit system for the Philadelphia-southern New Jersey area have been the threefold results of enlargement and modernization of the Pennsylvania's Broadway station in Camden, N. J.

Owned by the Pennsylvania, the station is used by that road for passenger—principally commuter—service to and from Pemberton, N. J., Burlington and Trenton (via the south bank of the Delaware river). It is used also by the Pennsylvania-Reading Seashore Lines, which handle a substantial volume of commuter and summer vacation travel between Camden (Philadelphia) and Atlantic City, Ocean City, Wildwood, Cape May and Millville, and intermediate points.

The new facility permits passengers to make direct undercover interchange, in either direction, between PRR and P-RSL trains and rapid transit trains operated by the Delaware River Authority (formerly the Delaware River Joint Commission) from Broadway, in Camden, to Eighth and Market streets, in downtown Philadelphia, via the Delaware River bridge.

Provision of these new direct interchange facilities has already permitted the PRR to abandon, as of last March 31, its costly ferry service by which passengers formerly crossed the Delaware river between Camden and Philadelphia. In addition, in a decision dated December 10, 1952, the New Jersey Board of Public Utility Commissioners authorized abandonment of the old Camden rail-ferry terminal, at Federal street, on the Delaware river, subject to the proviso that the east end of the most northerly of that terminal's seven platforms be provided with facilities for passengers on four weekday trains which, under the board order, must still be operated to that point. All other trains will originate or terminate at Broadway. While this decision does not permit the complete abandonment of the old ferry terminal which the railroad had sought, it should still be productive of some operating savings; and will release, for industrial development or other purposes, a considerable acreage of valuable riverfront property close to downtown Camden.

Rapid Transit Possibilities

The modernized Broadway station is, additionally, so located and so constructed that it could be utilized as an integral part of a rapid transit system connecting Philadelphia with its south Jersey suburban area, if the 20-year-old dream of creating such a system should become a reality.

As C. J. Henry, assistant chief engineer of the PRR's Eastern region, told the fourth annual conference of the Greater Philadelphia-South Jersey Council last October, "The right-of-way is there; the rails are there; the gage is standard; and all that remains to make the system a reality is to connect the 'High Speed' bridge line at Broadway, Camden, with the railroad tracks, secure additional rolling stock, and go as far as desired on the five existing lines that diverge to practically all of the south Jersey communities involved. This direct service could be provided from all parts of Philadelphia to south Jersey in a comparatively short time."

As shown by one of the accompanying diagrams, the PRR tracks, at Broadway, are directly adjacent to the tracks of the Delaware River Authority's "High Speed" transit line. Construction of a physical connection between the two would be, therefore, a relatively simple undertaking. "As far as desired" might, for example, be Moorestown, 10.9 miles from Camden on the PRR's line to Pemberton; Burlington, 18.3 miles from Camden on the Trenton line; Haddonfield, 7 miles from Camden on the P-RSL's main line to Atlantic City, Ocean City, Wildwood and Cape May; Clementon, 13.9 miles from Camden on the P-RSL's line to Atlantic City via Hammonton; and Glassboro, 18.8 miles from Camden on the Millville line.

Under such a setup, the PRR and the P-RSL could presumably terminate passenger trains, and turn passengers over to the rapid transit system, at the points named, with a substantial saving in railroad passenger train-miles operated; or they could continue to operate through trains into Camden on tracks which would be used jointly with rapid transit trains. Under either plan, however, they would be relieved of the bulk of their present very-short-haul commuter traffic; and, through elimination of stops now needed to handle that business, could provide better service, with fewer trains, for their longer-distance riders.

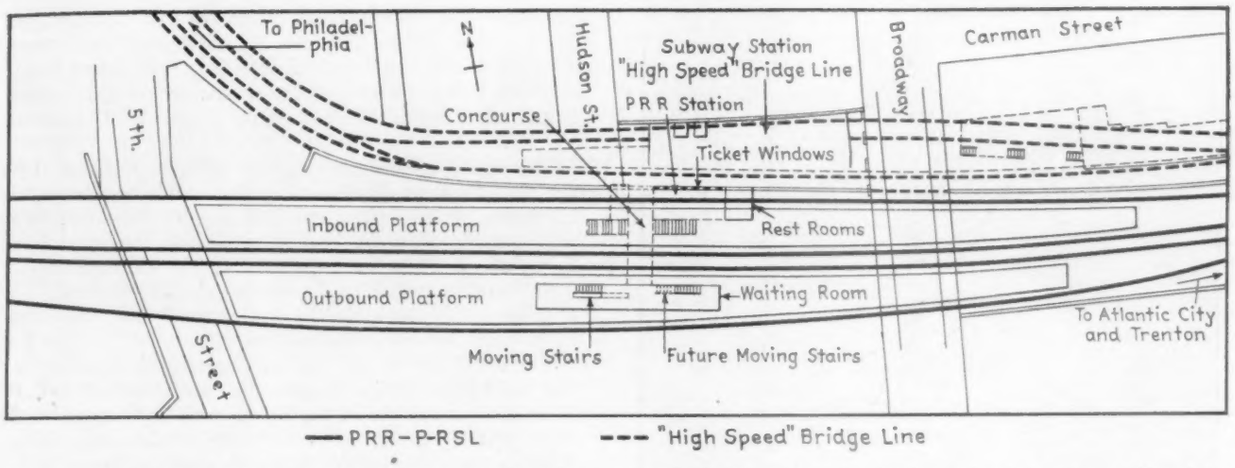
Broadway Station

The new station is situated between Broadway and Fifth streets in Camden, just a short distance south of the city hall. It is essentially a three-level structure. The lowest, or subway, level, which was virtually unchanged in the modernization work, is occupied by the double-track station of the Delaware River Authority's rapid transit line to Philadelphia. The middle, or street, level

The Pennsylvania's modernized Broadway station at Camden, N. J., as it appears from its east end, looking west toward the Delaware river and Philadelphia. The inbound platform is at the right; the outbound platform at the left. The connecting rapid transit station is underground on the right, just north of the railroad station.

Broadway station's outbound platform includes this heated waiting room; it is reached by stairs and the "up" escalator in the foreground. The stationmaster's office is located out of sight at the far end, while provision has been made for a second escalator and a newsstand, both to be located in the center background, if needed.

Now that ferryboats are no longer used to carry passengers across the Delaware river to and from Philadelphia (background), the old rail-ferry terminal at Federal street in Camden is facing abandonment, except for limited passenger facilities which are to be provided at the east end of the most northerly platform (foreground, above). Roofs of some of the Pennsylvania-Reading Seashore Lines' 12 Budd cars are just visible at the extreme left.



The new Broadway station provides direct connection between PRR and P-RSL trains from southern New Jersey and trains of the "high speed" bridge line between Camden and Philadelphia. The bridge line station, (top, above) is underground; the railroad station is above street level; connecting facilities between them are at street level.

includes railroad ticket offices, rest rooms, heating facilities, and a concourse approximately 20 ft. wide by 80 ft. long, extending south under, and providing access to, the railroad platforms.

Station Has Two Island Platforms

The upper, or track, level has two island platforms, extending from Fifth street east to and across Broadway. The north, or inbound platform, is approximately 800 ft. long, by a maximum of 30 ft. wide; the south, or outbound, platform is approximately 725 ft. by 40 ft., at its widest point. Both platforms are of reinforced concrete, and are sheltered by umbrella-type roofs of 2-in. precast concrete planks carried on steel H-beam uprights and steel supporting beams. The outbound platform has a fully enclosed waiting room, approximately 160 ft. by 20 ft. Interior walls of this waiting room, like those of the concourse, are faced with cream-colored ceramic glazed brick.

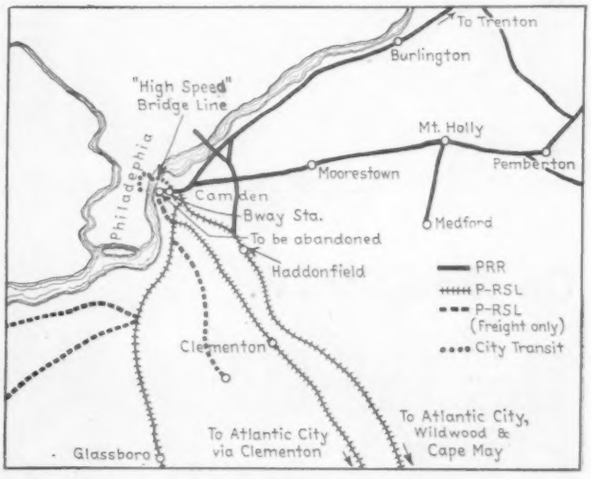
The subway and street levels are connected by stairs and an "up" escalator, as are the street-level concourse and the outbound track platform; provision has been made for a second escalator to that platform if it proves to be needed. Since all movement between the inbound platform and the concourse is "down," no escalator has been provided between them, nor is there any waiting room on the inbound platform, as there is no reason for passengers to remain on it.

The entire station is heated by a new hot-water, oil-fired, automatic system, with temperature controlled from the ticket office. A loudspeaker system, with outlets on all three levels, to call trains and make other necessary anouncements, may be operated from either the ticket office or the stationmaster's office, which is at the east end of the waiting room on the outbound platform.

Some Unusual Features Involved

Work on modernization of the station was begun September 1, 1951, and completed June 1, 1952. All work, including necessary excavation for the new concourse, was carried out without interruption to traffic.

One interesting feature of the work was the erection of a temporary roof over part of the project to permit uninterrupted 24-hour-a-day progress during December,

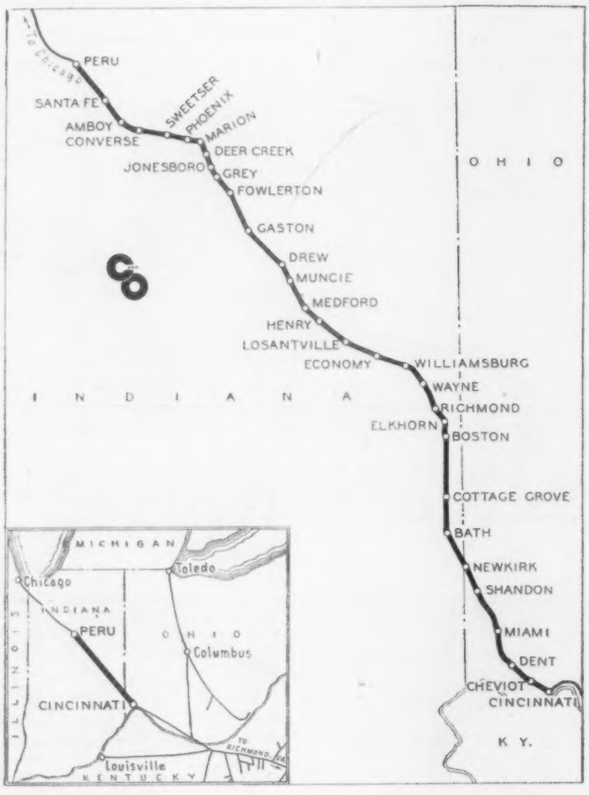


The new Camden Broadway station serves five PRR and P-RSL passenger lines radiating from Camden to southern New Jersey communities; these lines could be easily tied in to an expanded rapid transit system for the Philadelphia-Camden-South Jersey area. For simplicity, this sketch shows only those lines which might be affected by a regional rapid transit plan; the network of other lines serving the Philadelphia-Camden area has been omitted.

January and February. Another unusual feature was the pouring at one time of a continuous reinforced concrete slab, 127 ft. long by 26½ ft. wide, and weighing 400 lb. per sq. ft., to carry No. 1 track over the rest rooms, ticket office, concourse and boiler room. Forms for this slab were supported by tubular steel pipe scaffolding of a type used for the first time around the Philadelphia area.

All work was done under contract by the James McGraw Company, of Philadelphia. The total cost was approximately $885,000, of which the Pennsylvania paid some $600,000 and the Delaware River Authority, $285,000.

For the railroad, the work was under the general supervision of L. P. Struble, chief engineer of the PRR's Eastern region, and of Harry Babcock, superintendent of the PRR's Atlantic division and general manager of the P-RSL.



On the C&O . . .

This 155-Mile C.T.C. Project

Produced these benefits . . .

- ***Improved safety***
- ***Train time saved***
- ***Track capacity increased***
- ***Operating expenses reduced***

Modern centralized traffic control to authorize train movements by signal indications has been installed to replace manual block operation on 155 miles of busy single track on the all-freight Chicago division of the Chesapeake & Ohio between Cheviot, Ohio (Cincinnati) and Peru, Ind. The results have been significant in terms of enhanced safety, faster train movement, increased track capacity and reduced operating expenses.

On this division, traffic ranges from 11 to 15 or more freight trains daily in the summer. From November to April, during the season when non-rail Great Lakes shipping is closed down, heavy coal traffic north may increase movements to as much as 30 to 35 trains daily.

Although there is one section of tangent track about 8.5 miles long, the major portion of the Cheviot-Peru line traverses rolling hilly country with numerous curves, many of which range up to 5 or 6 deg., with a few 7 deg. and one 7 deg. 30 min. None of the curves necessitates reductions below the maximum permissible speed of 50 m.p.h.

The ruling grade eastbound is about 6 miles of 1.09 per cent through Dent. The ruling grade westbound is 6.5 miles of 0.96 per cent, just east of Newkirk. Elsewhere the grades are rolling, and, for the most part, short, and are less than 1 per cent. The through freight trains are operated by diesel-electric locomotives. The tonnage rating is 4,800 tons westbound and 4,500 tons eastbound, between Cheviot and Peru.

Previously there was no automatic block signaling on this division. Train movements were authorized by absolute manual block, the block stations being 6 to 10 miles apart, but not all were open continuously. Block stations were in service 24 hours daily at Peru, at YD Cabin (Cincinnati) and at 13 intermediate locations. Eight other offices were open 8 hours during the day except Saturday and Sunday. No more offices could be opened because competent operators who would work in outlying locations were not available. In fact, some of the offices scheduled to be open continuously were closed part of the time because operators could not be secured. When an intermediate office was closed, the absolute block was from open office to open office, with no provision for following moves. "Blind" siding moves were not permitted.

This method of operation resulted in numerous delays, especially when there was a shortage of operators. Therefore, as a means for improving safety and saving train time, a decision was made to install some form of track circuit controlled signaling. Centralized traffic control was chosen with power switches at the passing sidings. These power switches, as well as signals at these sidings, are controlled by the dispatcher at Peru. By signal indication, he directs and authorizes train movements, thus dispensing with manual block as well as train orders. If conventional automatic block had been chosen, some system of authorizing train movements, such as train orders, would have been required. According to division operating officers, the C.T.C. is accomplishing all the benefits anticipated in the way of saving train time, especially during the winter season, when coal traffic increases.

As part of the overall program of improvement, 15 sidings were lengthened to capacities ranging from 80 to 143 cars. These sidings, together with 7 other long sidings, a total of 22, were equipped with power switches and C.T.C.-controlled signals. Seven sidings (at Fernald, Peoria, Kitchell, Muncie, Janney, Deer Creek and Converse) were abandoned as passing sidings, being converted to storage tracks, the main track switches being equipped with electric locks.

The machine which controls the C.T.C. is in the dispatcher's office in an office building in the business section of Peru, four city blocks from the railroad line. This machine is made up of several panel sections, arranged in a "U" shape, totaling 22½ ft. in length. The track diagram is equipped with normally dark, white track-occupancy lights for both main track and sidings. Where there is more than one automatic block section between sidings, a track-occupancy light is provided for the "clearing out," or first automatic block section leaving each siding, to indicate when the leaving signal at the end of the passing siding may be cleared for a following movement. Where necessary, a third track-occupancy light is provided to indicate track conditions between these two "clearing out" sections. Track-occupancy

lights on the sidings are considered essential to provide indication on the machine when the siding is occupied, so as to improve the operation.

Normally dark traffic-direction lights are also provided on the track diagram for each section between meeting or holding points, using a green light in an arrow for eastward movements (superior timetable direction) and an amber light in an arrow for westward movements. These lamps are lighted when a route is established by clearing the entering signal and are held lighted as long as the section is occupied. Such an arrangement prevents "losing" a train within the limits of the controlled section, and permits more efficient operation of the control machine, both in closing up following moves and making closer meets.

There are 20 industry spurs with hand-throw main-track switches with electric locks in the Richmond area. A switch engine and crew are kept busy all day setting out and picking up cars at these spurs. In order to permit this switch engine crew to work as much as possible without delaying through trains, the siding-to-siding block between Wayne and Elkhorn is cut into four switching blocks by three double locations of lever-controlled absolute signals; 110L and 112R are one pair, 104L and 106R the second pair, and 98L and 100R the third.

This arrangement permits the conductor of the switching crew, for example, to advise the dispatcher by telephone that he has about an hour's switching to be done in the switching block between 104L and 100R, known as the Richmond block. He is given definite time limits within which he may occupy this block, and, by use of a special push-turn controller, in addition to the signal lever, a restricting aspect is displayed to admit his engine to the block. The signals automatically return to Stop when the switch engine enters the block.

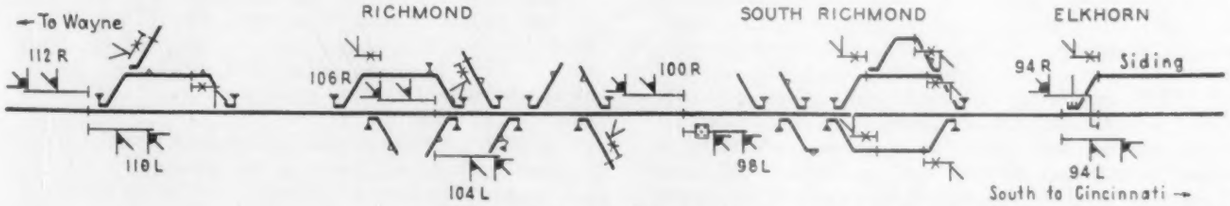
After the block is occupied, the switch lever may be operated to release the electric locks on the switches. The nine electric locks in this center area are controlled by Lever 101. Neither of the signals to enter this switching block, 104L and 100R, can be cleared again until the switch engine and cars clear the main track and turnouts to clearance point, and all switches and derails are normal and locked. Throughout the period while this special control is in effect, a green indication lamp is flashing above the push-turn lever on the dispatcher's control panel.

In the meantime, an eastward signal at Wayne, can be cleared to keep an eastward through freight moving on down toward signal 104L. Then, when the switch engine and cars are all in the clear and switches locked, the conductor of the crew reports in the clear and eastward signal 104L can be cleared to keep the through train moving.

The levers for control of the special signals, such as 104L, are the push-to-turn type, thus requiring special attention by the dispatcher so that he will be reminded that he is setting up a special condition that will require further attention and cooperation by the switching crew to avoid delay to a through train. The track-occupancy lights on the track diagram indicate where the switch engine is working, and if that crew does not clear the main track within authorized time limits, a control code can be sent out to blow a loud sounding electric horn. This warns the crew to get in the clear, and for the conductor to call on the phone.

C.T.C. signals put manual block offices in background on C&O's new 155-mile installation.

Switches at 22 passing tracks are operated by electric machines.



At Richmond the switching territory is cut into short sections to save train time.

The atmosphere is informal throughout the whole training program. In this session at Newark, N. J., 14 supervisors and the two conference leaders took part.

How REA Finds Executive Talent

Supervisory development program provides insight on promotable people — First consideration is degree to which supervisor is "personnel-oriented"

A supervisory training program, "long" on human relations, has been in effect for about eight months in the larger terminals of the Railway Express Agency. This program includes a series of informal lectures, conferences, and tests on material covered in the course, based on a manual prepared by the REA personnel department and the management consulting firm of Drake, Startsman, Sheahan & Barclay. At present the course is given to operating department supervisors with titles of general foreman, assistant agent, agent, terminal agent, vehicle supervisor, general agent, city superintendent, chief clerk, and division supervisor. Since "the age level of [REA] operating executives . . . is exceptionally high," says President W. A. Hammell in an introduction to the manual, this training program was undertaken in order to find and develop men qualified to fill these jobs. Mainly, these top operating men will be drawn from the supervisory classes mentioned.

The course contemplates 24 hours of training, given two hours per day for twelve days. Reportedly, it has aroused considerable enthusiasm among the supervisors themselves, in spite of the fact that some of the training is done on the time of the men themselves, the rest being on the time of the company. Too, at a "Management Conference," held in New York last October, a committee of REA superintendents was moved to report:

"The . . . members of this committee who have had the opportunity to read the advance copy of the 'Handbook for Supervisors' derived . . . much benefit from it. . . . They feel [its] potential is so valuable its immediate distribution to all supervisors would make their efforts more effective."

The REA supervisory training program includes training in practically all phases of the supervisor's job. By subject headings these are broken down in the handbook into the following categories: (1) Elements of super-

Railway Express Agency
INCORPORATED
CERTIFICATE OF ACHIEVEMENT

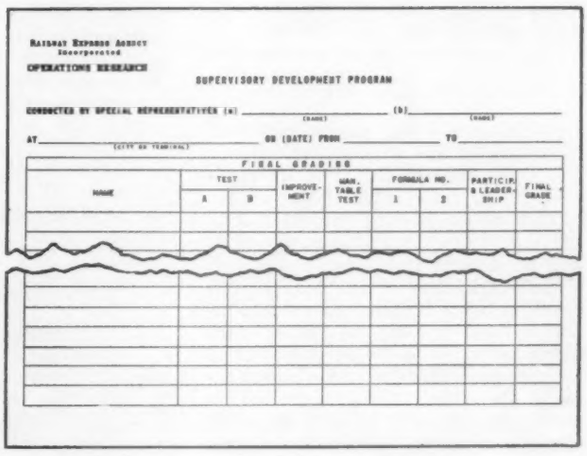
This is to certify that

has satisfactorily completed an approved course of instruction in supervisory development held under the auspices of Railway Express Agency at_____ from_____ to_____

RECOMMENDED BY
General Manager

APPROVED BY
Vice President

Certificates of achievement are given to those who successfully complete the course.



RAILWAY EXPRESS AGENCY
Incorporated
OPERATIONS RESEARCH

SUPERVISORY DEVELOPMENT PROGRAM

CONDUCTED BY SPECIAL REPRESENTATIVES (a) _____ (NAME) (b) _____ (NAME)

AT _____ (CITY OR TERMINAL) ON (DATE) FROM _____ TO _____

FINAL GRADING

NAME	TEST A	TEST B	IMPROVEMENT	MAN. TABLE TEST	FORMULA NO. 1	FORMULA NO. 2	PARTICIP. & LEADERSHIP	FINAL GRADE

Each member of a supervisory training class is graded on the work done in the course.

vision; (2) materials handling; (3) production planning and control; (4) work measurement; (5) methods improvement; (6) planned terminal arrangement; and (7) employee training. There is also a section on the history and organization of REA, plus an introduction by President W. A. Hammell.

Basically, the program operates from the premise that the main qualification for a good supervisor is an ability to get along with the men who work with and for him. (It is emphasized, of course, that this does not mean letting the men "walk over" him.) The manual puts this in these terms: "Remember that wise leadership is more essential to successful operation than expensive organization or perfect equipment," and, "Remember three things: (1) He (the employee) is your most expensive commodity; (2) the success or failure of the organization depends on him; (3) he can make you a good leader or he can break you." Summing up, the manual says, what it amounts to is "be decent to your men." To guide the supervisor in realizing this objective, the manual goes into considerable detail in telling him something of basic human drives and what the worker has a right to expect from his supervisor.

Another important section of the manual is on employee training, which ties in very closely with the human relations theme, but, of course, goes beyond it into the realm of the technical. The supervisor is told how he might go about the task of introducing a new employee to his job. First, of course, the "boss" is told that he must prepare himself for this task. He must explain the job to the new man, then demonstrate it. After that the trainee should be permitted to practice the job, with the supervisor still at his side. Once it is clear that the new man knows the work and how to do it properly, he can be left to himself for a while, but not before the supervisor is satisfied that he does know the job. However, the good supervisor will check back on the new employee from time to time, including a number of checks on the first day of work, to see that he has not developed bad work habits. Follow-up, the program stresses, in employee training, as in getting anything else accomplished, "is an essential part of good supervision."

The remainder of the manual is primarily technical, covering items 2-6 in the training subjects listed above. As each subject is covered, illustrative problems in materials handling, work measurement, etc., are worked out with the supervisors. One thing is particularly emphasized, namely, that *cooperation among supervisors is essential to a successful operation.* In other words, before making any change in operating procedure, a general foreman, for example, it is pointed out, should *consult* with the other supervisors in the terminal. This is recognition of the fact that any change in operating procedures usually affects more than just the forces under the person initiating the change. REA people feel this is extremely important.

The program of training is a series of informal lectures interspersed with what are called "free conferences." During the lectures, the audience is free—and is encouraged—to ask questions at any time. In the conferences, one of the "trainees" is called upon to lead the group in a discussion of a given subject, such as materials handling. On the final day of the sessions two of the participants in the course are required to act out the process of introducing a new man to his job.

Classes Limited in Size

Classes are limited to no more than 24 persons, and usually to less than 20. At present six teams of two men each are spending their time in the larger REA terminals all over the country giving the course. Once this first phase of the program has been completed, plans now being formulated will carry the training to smaller stations and terminals. At the same time, probably, a follow-up program will be begun to see just how well the supervisors have learned their lessons and are applying them in their everyday work. Also, the program will be extended to supervisory forces in other than agency operating department forces.

During the first two-hour session in the REA program, i.e., prior to any instructional periods, each supervisor is given a test devised to ascertain what his supervisory rating is. After he has completed the course he is given another similar text, and his improvement is noted. Also, after the training subject has been covered, the trainee is given examinations on production planning and control and work measurement. All exams are marked and each man is rated on his performance plus such other factors as appearance and initiative. Thus, once the supervisor has completed the training program, his abilities and aptitudes are much better known to REA than they were formerly. Hence, assuming that a man "has the stuff" he now has a better chance for promotion than he used to have, and top management knows where it can get a man to promote to a given job.

SUPPLY TRADE

(Continued from page 18)

Franklin president, emphasized that "this is not a new field for us." Bower Roller Bearing, according to its president, S. A. Strickland, is one of the largest roller bearing manufacturers and one of the few making tapered as well as straight roller bearings.

Mr. Strickland said the Bower-Franklin roller bearing journal box assembly will utilize any inner race which may eventually be standardized by the Association of American Railroads. He added that standardized interchangeable inner races will permit stocking of axles with the inner races pressed on, and their use with any roller bearing journal box conforming to the standards. The Bower-Franklin bearing assembly will utilize straight roller-type bearings.

L. A. Watts, formerly assistant general manager of sales of the Wickwire Spencer Steel division of the **Colorado Fuel & Iron Corp.,** has been appointed general manager of sales of the eastern division. Mr. Watts joined the former Wickwire Spencer Steel Company in 1938, and was appointed

L. A. Watts

manager of the general wire sales department of Colorado Fuel & Iron in 1947. He headed the then newly opened Detroit district sales office as manager in 1949, and in 1950 established and managed the pig iron and semi-finished sales department of the Wickwire Spencer Steel division. He was appointed general manager of sales of the division in 1951.

S. M. Clancy, central district sales agent at Cleveland for the **P. & M. Co.,** Chicago, has retired after 36 years of service with the company.

Because of a proofreader's error, **Hugh Hazelton, Jr.,** was incorrectly reported on page 90 of the February 9 *Railway Age* as having been appointed vice-president in charge of sales of the Ramapo Ajax division of the **American Brake Shoe Company.** Mr. Hazelton's correct title is assistant to vice-president in charge of sales, in which position he will report to **Joseph P. Kleinkort,** who has been and continues as sales vice-president.

George R. Hettinger, railroad and transport sales representative of the **Automatic Transportation Company,** at Chicago, has been appointed

George R. Hettinger

manager of railroad sales. Mr. Hettinger had served in his previous position since he joined Automatic two years ago.

Gerrard Steel Strapping, a division of **United States Steel,** has announced the opening of a new product service section for light and heavy duty and specialty products. Responsibility in this new section, headed by **Harry Reed,** central district sales manager, will be divided between **Martin M. Groark,** assistant manager in charge of light duty and specialty products; and **Richard G. Patterson,** assistant manager in charge of heavy duty products.

The **Maintenance Equipment Company,** Chicago, has concluded a contract with the **Wood Treating Corporation,** Cleveland, as a result of which Maintenance Equipment is now world wide distributor of Tylife, a product for increasing holding power of track spikes.

Gould-National Batteries, Inc., has appointed **W. H. Burkey** as district manager for the Industrial division in the St. Louis area. Mr. Burkey has been serving mining companies, railroads, utilities and other industrial users of batteries in the area since 1941. He has been with Gould-National and predecessor companies since 1930.

The **Nathan Manufacturing Company** has announced its reorganization as the **Nathan Manufacturing Corporation.** The following appointments have been made: **W. G. Weygand,** general manager; **O. Wennberg,** vice-president, engineering; **M. W. McMahon,** general sales manager; and **R. H. Jenkins,** special representative. There have been no other changes in the present sales and service organization, the announcement said.

The **Pyle-National Company** has announced "another step in our diversification program"—purchase of the Oil Reservoirs division of the **General Electric Company.** All machinery and equipment necessary to produce the reservoirs is being transferred from G.E.'s Schenectady, N.Y., plant to Pyle-National's No. 2 plant at Chicago. Pyle-National simultaneously announced appointment of the **Technical Products Service & Sales Co.,** Louisville, as sales representative in that area for its Multi-Vent (low-velocity air panels) division. Technical Products will serve the northern half of Kentucky and a portion of southern Indiana.

The **Simplex Wire & Cable Co.** has announced the following changes in its sales organization: **C. H. Sass, Jr.,** transferred to the Chicago office as railroad salesman, to deal with railroads having headquarters in the midwest; **E. A. Carlson,** of the inside railroad sales staff, to succeed Mr. Sass as New England representative for the railroad department; and **P. J. McHale** to head the inside railroad sales staff.

FINANCIAL

Baltimore & Ohio.—*Reduces R. F. C. Indebtedness.*—Receipt of a payment of $3,001,635 from the B&O has been announced by the Reconstruction Finance Corporation. The remittance represents advance payment of $2,991,000 to retire B&O collateral trust four per cent bonds held by the R.F.C., plus $10,635 interest. The bonds are due January 1, 1965. Balance of B&O bonds held by the R.F.C. (which purchased $80,000,000 of the road's bonds in June 1947), has been reduced to $65,000,000.

Erie.—*Trackage Used by Delaware & Hudson.*—This road has asked the I.C.C. to find that public convenience and necessity "permit and require" abandonment by D&H of trackage rights over Erie's line between Jefferson Junction, Pa., and Carbondale, approximately 34.5 miles. The Erie said present charges paid by D&H are "unfair and oppressive," and the D&H has taken the position that there is "no justification for an increase of the rates under the contract." Should the D&H agree to pay "just and reasonable" charges, the Erie asked that the I.C.C. issue an order approving and authorizing such charges. The D&H has used this Erie trackage since 1898.

Georgia & Florida.—*R.F.C. Loan.*—The I.C.C. has approved purchase by

the Reconstruction Finance Corporation of $717,000 of equipment trust certificates, issued by the G&F in connection with acquisition of 150 all-steel wood rack cars. The 4 per cent certificates would be dated on or about May 1, 1953, and would mature in semi-annual installments for 10 years.

Long Island.—*Reorganization.*—The Brotherhood of Railroad Trainmen has been authorized by the I.C.C. to intervene in this proceeding. In a petition filed with the commission, the B.R.T. said it represents conductors, brakemen and other employees on the LI, and the commission's decision in this case could have an adverse effect upon these B.R.T. members. It asked authority to intervene to protect their interests.

New Orleans & Northeastern.—*Acquisition.*—Division 4 of the I.C.C. has authorized this road to acquire control of the Louisiana Southern through purchase of LS capital stock. Northeastern will purchase 8,995 shares of the 10,000 outstanding, and will pay $110 a share. Division 4 said the road must purchase additional shares, at the same price, if they are offered within five years. The 14.6-mile LS extends from Braithwaite, La., to a connection with the New Orleans Terminal Company at Slip Junction. It affords access to choice industrial sites in the New Orleans area. Acquisition by Northeastern will bring the carrier into the Southern system (*Railway Age*, November 24, 1952, page 65).

New York, Susquehanna & Western.—*Reorganization.*—The I.C.C. has authorized payment of $61,809.89 to the reorganization managers who will place in effect the reorganization plan for this road. The fund will be used for expenses, including the cost of dissolving the old Pennsylvania corporation, engraving and printing new securities, and listing new securities on the New York Stock Exchange.

Pennroad Corporation.—*Annual Report.*—Net income of this company, excluding net realized gain on investments, was $2,474,101 in 1952, according to the annual report. Net realized gain on investments totaled $3,019,600, and the increase in unrealized appreciation in indicated value of investments amounted to $3,206,906. On December 31, 1952, Pennroad's net asset value was $68,809,019, equal to $13.76 a share, compared with $65,108,411, or $13.02 a share, on December 31, 1951. Portfolio changes during the second half of 1952 included purchase of Denver & Rio Grande Western escrow certificates for 3,900 five per cent convertible preferred shares and 12,600 common shares (the present extent of Pennroad's interest in those issues), and sale of 5,700 Western Pacific common shares (reducing ownership of that issue to 4,300 shares), and 400 Boston & Maine prior preference shares, as well as 17,000 B&M class B first preferred shares (reducing ownership of the issues to, respectively, 43,904 and 7,979 shares).

New Securities

Application has been filed with the I.C.C. by:

CENTRAL OF NEW JERSEY.—To assume liability for $2,460,000 of equipment trust certificates, to finance in part 500 steel box cars costing an estimated $3,079,000. The cars, costing $6,158 each, would be purchased from the American Car & Foundry Co. The certificates, dated March 1, would mature in 15 annual installments of $164,000 each, beginning March 1, 1954. They would be sold by competitive bidding, which would fix the interest rate.

MAINE CENTRAL.—To issue and sell $17,000,000 of first mortgage and collateral bonds, the proceeds to be applied toward redemption of outstanding bonds which will become due next year, in 1955, and in 1960. The bonds to be redeemed are: $8,037,000 of first mortgage and collateral bonds ($7,914,000 of them publicly held) due December 1, 1954; $7,347,500 of general mortgage bonds ($7,102,000 publicly held) due December 1, 1960; $2,200,000 of Washington County Railway bonds ($1,996,000 publicly held) due January 1, 1954; and $712,000 of Somerset Railway Company first mortgage bonds (all publicly held) due July 1, 1955. The proposed new bonds would be an additional series issued under a December 1, 1935, indenture and a supplemental indenture dated February 1, 1953. There would be sinking-fund provisions and the new bonds would be due February 1, 1978. They would be sold on the basis of competitive bids, which would fix the interest rate.

MISSOURI PACIFIC.—To assume liability for $3,500,000 of series "UU" equipment trust certificates, to finance in part 28 diesel units costing an estimated $4,443,082.

	Description and Builder	Estimated Unit Cost
23	1,500-hp. road switchers (Electro-Motive Division, General Motors Corporation)	$155,884
5	1,500-hp. road-switchers (Electro-Motive)	167,644

The certificates, to be dated March 2, would mature in 15 annual installments, beginning March 2, 1954. The first five such installments would be $350,000 each, and the remaining 10 would be $175,000 each. The certificates would be sold by competitive bidding, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has **authorized:**

ILLINOIS CENTRAL.—To assume liability for $6,000,000 of series "36" equipment trust certificates, to finance in part 1,500 drop-bottom gondola cars costing an estimated $8,400,000 (*Railway Age*, January 19, page 51.) Division 4 approved sale of the certificates for 99.673 with interest at 3 per cent—the bid of Halsey, Stuart & Co. and nine associates—which will make the average annual cost of the proceeds to the road approximately 3.05 per cent. The certificates, dated February 1, will mature in 30 semiannual installments of $200,000 each, beginning August 1, 1953. They were reoffered to the public at prices yielding from 2.2 to 3.1 per cent, according to maturity.

SOUTHERN.—To assume liability for $3,600,000 of series "TT" equipment trust certificates, to finance in part 30 diesel-electric locomotives costing an estimated $4,680,000 (*Railway Age*, January 19, page 51). Division 4's report approved sale of the certificates for 99.68 with interest at 3 per cent—the bid of Halsey, Stuart & Co. and six associates—which will make the average annual cost of the proceeds to the road approximately 3.05 per cent. The certificates, dated February 1, will mature in 30 semiannual installments of $120,000 each, beginning August 1, 1953. They were reoffered to the public at prices yielding from 2.2 to 3.1 per cent, according to maturity.

TENNESSEE CENTRAL.—To increase, from $980,000 to $1,030,000, the amount of equipment trust certificates to be issued in connection with acquisition of 200 hopper cars (*Railway Age*, February 2, page 53.) The certificates, with interest at 4 per cent, will be sold to the Reconstruction Finance Corporation. Higher costs per car forced the TC to seek this increase, Division 4 said.

Security Price Averages

	Feb. 10	Prev. Week	Last Year
Average price of 20 representative railway stocks	66.99	69.64	56.80
Average price of 20 representative railway bonds	94.88	95.20	92.08

RAILWAY OFFICERS

EXECUTIVE

As reported in *Railway Age* January 5, page 53, **Robert N. Woodall** has been promoted to assistant vice-president of the SOUTHERN at Washington, D.C. Mr. Woodall was born on August 11, 1904, at Lynchburg, Va., and entered the service of the Southern in May 1922 as a messenger in the division freight agent's office at Lynchburg, serving there later in various stenographic and clerical capacities.

Robert N. Woodall

He was promoted to chief clerk to New England freight agent at Boston in March 1933; commercial agent at Lynchburg in December 1933; district freight and passenger agent at New York in July 1936; general eastern freight agent at New York in September 1938; general agent at Pittsburgh in May 1939; assistant freight traffic manager at New Orleans in April 1941; eastern traffic manager at New York in December 1943; and freight traffic manager at Cincinnati on January 1, 1949.

As reported in *Railway Age* January 12, page 248, the RAILWAY EXPRESS AGENCY has made the following appointments: **James F. Ross,** assistant vice-president — operations, at New York; **Robert C. Hendon,** vice-president—personnel, at New York; **Paul Gross, Jr.,** secretary and administrative assistant; **E. Boykin Hartley,** assistant to president; and **Stanley F. Pitcher,** vice-president, Southern departments, at Atlanta, Ga. Announcements were made of retirement of **Walter Reese,** vice-president, Central departments, at Chicago, and **W. J. MacGreevy,** vice-president, Southern departments, at Atlanta.

Mr. Ross was born at Everett, Mass., October 4, 1890, and entered the service of the American Express Company, a predecessor of REA, as a clerk at Boston, where he served in various capacities, rising to superintendent of terminals. In 1923 Mr. Ross was called

to New York for an assignment in efficiency and organizational work in the Eastern departments. He was named special representative in July 1929, superintendent of organization in April 1933, assistant to vice-president in December 1936, general manager of New York City departments in January 1939, and assistant to president in June 1949.

James F. Ross

Robert C. Hendon

Paul Gross, Jr.

Mr. Hendon was born at Shelbyville, Tenn., and was graduated from the State University of Montana with an A.B. degree in journalism (1931) and LL.B. (1934). Before entering the express business, Mr. Hendon served with the Federal Bureau of Investigation for 13 years as special agent in charge of field divisions at St. Paul, Des Moines, and Philadelphia; and as administrative assistant to F.B.I. Chief J. Edgar Hoover at Washington, D.C. Mr. Hendon became manager of the Prevention and Security department of REA in 1947, being appointed general manager of the Allegheny department at Philadelphia in April 1950.

Mr. Gross was born at New York and started in the express business in Jersey City, N.J. After holding a number of positions he became statistician of the accounting department in 1921, special representative of vice-president—accounting in 1928, general auditor at Chicago in 1935, and assistant to vice-president—accounting in 1949.

Mr. Hartley was born at Washington, and holds the degree of mechanical engineer from Stevens Institute of Technology. Mr. Hartley was a lieutenant in the U.S. Navy during World War II, and before joining REA was assistant to vice-president of United Parcel Service. Prior to that he was special assistant to the Secretary of the Interior at Washington, as a management and organization specialist. In that capacity he conducted surveys of a number of large government activities, including some in Puerto Rico and the Virgin Islands.

E. Boykin Hartley

Mr. Pitcher started his express career in 1913 at Chattanooga, Tenn., with the Southern Express Company, a predecessor of REA. This was interrupted by service in France with the American Expeditionary Forces during World War I. After filling several posts in the south, including that of general agent and operating superintendent, he went to New York in 1939 as superintendent of organization and chairman of the standard practices committee. He became executive assistant at New York in August 1940 and general manager of the Gulf departments at Atlanta in September 1942.

Mr. Reese began his express career as a clerk for the American Express Company at Memphis in 1904, and subsequently served in various positions, including that of route agent at Memphis and Yazoo, Miss.; and assistant to manager and assistant to vice-president at St. Louis. He continued in that position when the present REA was formed in 1929, remaining at St. Louis until 1932, when he became assistant to vice-president at Chicago. Mr. Reese was appointed general manager at St. Paul in 1934, executive assistant to president at New York in 1936, general manager at Cleveland in 1937, vice-president and general man-

Stanley F. Pitcher

Walter Reese

W. J. MacGreevy

ager at St. Louis in 1940, vice-president at San Francisco in January 1948, and vice-president at Chicago in October 1948.

Mr. MacGreevy was born at Springfield, Ohio, January 12, 1886, and was graduated from Columbia University (B.A., 1908). He began his career in 1908 as a clerk with Wells Fargo & Co., an REA predecessor, subsequently becoming agent at Louisville, Ky., and route agent at Canton, Ohio, successively. He then served the REA as assistant to vice-president of Western departments at San Francisco, superintendent of the Los Angeles division, general manager of the Trans-Missouri department at Omaha, general manager of the Ohio Valley department at Cincinnati, and general manager of the Committee on Personnel and Labor Relations at Chicago. Mr. MacGreevy was appointed vice-president of Southern departments at Atlanta in 1948.

Walter L. More, general manager of ATCHISON, TOPEKA & SANTA FE Eastern Lines at Topeka, Kan., has been named assistant vice-president at Chicago. **J. N. Landreth,** assistant to operating vice-president at Chicago, succeeds Mr. More.

Mr. More started his railway career with the Santa Fe as a clerk at Riverside, Cal., in 1917, and served as transportation inspector and chief clerk be-

Walter L. More

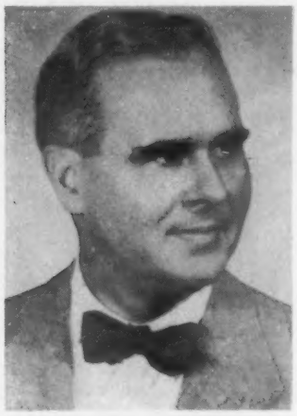
fore going to Winslow, Ariz., as trainmaster in 1935. In 1942 he was promoted to superintendent of the San Francisco and Valley divisions; in 1945 was appointed assistant general manager at Los Angeles, and in 1946 was transferred to La Junta, Colo. In February 1949 he went to Chicago as assistant to operating vice-president, being appointed general manager at Topeka in July of that year.

Herbert W. Moore has been appointed assistant vice-president in charge of sales of the BANGOR & AROOSTOOK. Mr. Moore was born at Melrose, Mass., and was graduated from Boston University (1938) and Harvard Business School (M.B.A., 1940). Mr. Moore worked for the General Electric Company at Lynn, Mass., until he entered the Army Air Forces in 1942. After his discharge in 1946 as a lieutenant colonel, he joined the Potato Industry Council of Maine as executive secretary at Presque Isle. He is currently director of this organiza-

Herbert W. Moore

tion. Mr. Moore has served as chairman of the Association of American Railroads Car Efficiency Committee for Maine and secretary of the Potato Committee of the New England Shippers Advisory Board. At present he is executive secretary of the Maine Institute of the Potato Starch Manufacturers and general manager of the Maine Potato Shippers Heater Service.

James L. Homire, general solicitor of the ST. LOUIS-SAN FRANCISCO, has been elected vice-president and general counsel at St. Louis, succeeding the late **E. G. Nahler.** Mr. Homire was born at Louisville, Ky., November 19, 1901, and attended the University of



James L. Homire

Chicago (Ph.B., 1923; J.D., 1926). He began his railroad career in May 1926 as an attorney in the law department of the New York Central at Chicago, later transferring to New York. From 1937 to 1941 Mr. Homire held the positions of co-trustee and counsel for trustees of the Duluth, South Shore & Atlantic. From 1933 to 1937 and 1942 to 1945 he was counsel for the Federal Emergency Administrator of Public Works and special counsel and chief railroad counsel for the Reconstruction Finance Corporation at Washington, D.C. In 1945 he became associated with the law firm of Davis, Polk, Wardwell, Sunderland & Kiendl of New York. Mr. Homire joined the Frisco in 1949 as general attorney, and was promoted to general solicitor in August 1950.

Joseph T. Theby, vice-president and general manager of the CHICAGO & EASTERN ILLINOIS, has retired. He has been succeeded as general manager by **A. W. Schroeder,** general superintendent.

Dwight L. Smith, general manager of the CHICAGO NORTH SHORE & MILWAUKEE, has been elected vice-president and general manager. **Richard S. Amis,** general traffic manager, has been elected vice-president—traffic.

Henry E. Poulterer, vice-president—traffic, of the WESTERN PACIFIC has retired. **Malcolm W. Roper,** assistant vice-president—traffic, has been appointed vice-president—traffic. A photograph and biography of Mr. Roper were published in *Railway Age* November 3, 1952, page 103.

Mr. Poulterer embarked upon his railway career as a messenger for the Great Northern in 1905. A year later he joined the Union Pacific freight

Henry E. Poulterer

traffic department as office boy, rising to the position of assistant general freight agent at Omaha in 1927. In 1931 he joined the WP as assistant freight traffic manager, being promoted to freight traffic manager of the WP and its subsidiary Sacramento Northern and Tidewater Southern in 1937. In December 1941 he was elected vice-president—traffic for the entire WP system.

FINANCIAL, LEGAL & ACCOUNTING

John E. McCullough, general attorney of the ST. LOUIS-SAN FRANCISCO, has been appointed general solicitor, succeeding **James L. Homire,** who

has been elected vice-president and general counsel.

T. A. Clarkson, secretary of the NASHVILLE, CHATTANOOGA & ST. LOUIS, has retired after 65 years of service. Mr. Clarkson entered railway service in 1888 as a messenger for the NC&StL, joining the accounting department in a clerical capacity a year later. He was subsequently appointed chief clerk and secretary to the following officers: resident engineer, 1891; chief engineer, 1892; general manager and purchasing agent, 1895; and president, 1900. In 1906 he was appointed chief clerk to chairman of the board, with joint service in the office of the president and general manager. He has served as secretary of the Nashville & Decatur since 1907; of the NC&StL since 1914; and of the Paducah & Illinois since 1918.

OPERATING

C. G. Rodgers, assistant superintendent of the CHICAGO & EASTERN ILLINOIS, has been named general superintendent, replacing **A. W. Schroeder,** who has been appointed general manager. Mr. Schroeder received his civil engineering degree from the University of Nebraska in 1938, and began railroading as a junior engineer with the Chicago, Burlington & Quincy in

A. W. Schroeder

1939. Advancing through the engineering department, he attained the position of assistant engineer of track, system, in 1947. In 1949 he joined the C&EI as chief engineer, becoming superintendent of operations a year later.

Mr. Rodgers joined the C&EI as a brakeman in 1915. In February 1949 he was appointed trainmaster at Danville, Ill., and one year later became assistant superintendent.

Richard G. Robinson, superintendent of the dining car department of the PENNSYLVANIA at Long Island City, N.Y., retired on January 30, after 52 years of railroad service. After six years with the Erie at Jersey City, N.J., Mr. Robinson entered the service of the PRR on March 1, 1907, as a clerk at Jersey City, and served successively as bookkeeper, accountant, statistician and office manager, before being named assistant superintendent on July 1, 1929. He became superintendent dining car service on March 1, 1934.

As *Railway Age* reported January 12, **A. W. Laskoske,** superintendent of the NEW YORK CENTRAL at Detroit, has been appointed general manager of the Michigan Central district. **Donald B. Fleming,** assistant superintendent at Springfield, Ohio, has been named superintendent at Chicago, and **William H. Shearer,** assistant superintendent at Jackson, has become superintendent there.

A. W. Laskoske

Mr. Laskoske joined the Central in 1922 as a car repairer. He later became a yard clerk and advanced through the operating department to the position of assistant superintendent at Niles, Mich., in 1942. He served in the same capacity at Chicago in 1942 and at Jackson in 1943. In 1946 he was promoted to superintendent at Detroit.

Donald B. Fleming

Mr. Fleming became associated with the Central in 1929 as a traveling car agent at Cincinnati. He was appointed assistant trainmaster at Galion, Ohio, in 1940. In 1943 he became trainmaster at Columbus, and in 1944 was transferred to Springfield, Ohio. Following this he served as assistant superintendent at, successively, Van Wert, Ohio, Charleston, W.Va., and Springfield.

Mr. Shearer joined the NYC as a

William H. Shearer

clerk at Detroit in 1921. In 1936 he was appointed general yardmaster. In 1942 he served as trainmaster at Jackson and later moved to Detroit. He received his promotion to assistant superintendent at Jackson in 1951.

As reported in *Railway Age* December 29, 1952, page 54, **William H. Moore** has been appointed superintendent of the Charleston division of the SOUTHERN at Charleston, S.C. Mr. Moore was born May 8, 1916, at Hazard, Ky., and was graduated from Virginia Military Institute in 1937. He

William H. Moore

entered the service of the Southern as a student apprentice in February 1941, serving later as supervisor of work equipment at Charlotte, N.C. In March 1946 he was appointed assistant division engineer at Atlanta and later that year was named trainmaster there, transferring to Ashville, N.C., in September 1948.

J. M. Shanaphy, manager of the safety department of the RAILWAY EXPRESS AGENCY, has been appointed assistant general manager—transporta-

tion at New York. **F. E. Horning,** superintendent of the St. Louis division, has been appointed assistant general manager at New York.

J. N. Landreth, assistant to operating vice-president of ATCHISON, TOPEKA & SANTA FE Eastern Lines at Chicago, has been appointed general manager at Topeka, Kan., succeeding **Walter L. More,** who has been appointed assistant vice-president. **L. M. Olson,** assistant general manager at La Junta, Colo., succeeds Mr. Landreth.

Mr. Landreth began his Santa Fe

J. N. Landreth

career at Slaton, Tex., as a telegrapher in 1924. In 1942 he was named trainmaster, transferring later to Wellington, Kan., and Las Vegas, N.M. In 1945 he was appointed superintendent, serving successively at Slaton, Emporia, Kan., Amarillo, Tex., and Winslow, Ariz. In 1949 he was promoted to assistant general manager at Galveston, Tex., and in July of that year became assistant to operating vice-president.

L. M. Olson

Mr. Olson joined the Santa Fe as a stenographer at La Junta in 1925, and was appointed trainmaster at San Angelo in 1940 and superintendent at Slaton in 1945. During part of 1946 he worked on special assignment in the vice-president's office, being appointed superintendent at Emporia later that year. He was promoted to assistant general manager at Los Angeles in 1948, and in 1949 became assistant general manager at La Junta.

A. L. Christiansen, superintendent of transportation of the ELGIN, JOLIET & EASTERN, has retired after 50 years of service with that company. **Paul H. Verd,** general superintendent, has assumed the duties formerly assigned to Mr. Christiansen.

Emmet J. Garrity, assistant general superintendent of transportation of the CHICAGO NORTH SHORE & MILWAUKEE, has been appointed superintendent of transportation, succeeding to the duties of **John J. Doe,** general superintendent of transportation, who has retired because of ill health.

TRAFFIC

The CHICAGO GREAT WESTERN has created the position of freight service manager at Oelwein, Iowa, to which **C. G. Stewart,** assistant general freight agent, has been appointed. Three newly created positions of freight traffic managers—for Eastern, Western and Southern territories—will be filled by **Thomas G. Kees,** freight traffic manager, **F. P. Wagner,** eastern traffic manager, and **J. B. Hoverson,** petroleum traffic manager, respectively. Other appointments include: **Glenn E. Soderholm** as eastern traffic manager at New York; **W. W. Rice** as

Thomas G. Kees

general agent at Washington, D. C.; **W. A. Morgan** as general agent at Dallas, Tex.; **J. F. Parkinson** as general agent at Winston-Salem, N.C.; **L. F. Sebeck** as general agent at Buffalo, N.Y.; and **R. L. Warder** as general agent at Omaha, Neb., to succeed **F. P. Orr,** promoted to assistant general freight agent there to succeed Mr. Stewart.

Mr. Kees started his railroad career with the CGW as an assistant rate clerk in 1920. In 1925 he was promoted to district passenger agent; four years later to general agent, passenger department, at Chicago; and in 1932 to general agent, freight department, at Des Moines, Iowa. From there he went to New York as general eastern agent and then as eastern traffic manager. In 1946 he was appointed freight traffic manager in charge of sales and service.

Mr. Wagner joined the CGW in 1922. His early experience was gained in the passenger department at Chicago, Rochester, Minn., St. Paul, New York, and Kansas City. In 1932 he became assistant general agent at Chicago, later serving in the same capacity at Cincinnati and Los Angeles. In 1947 he was appointed eastern traffic manager at New York.

Mr. Hoverson began his railway career in 1916 as a clerk with the Milwaukee at Kansas City. Four years later he joined the traffic department of the CGW there. Prior to his promotion to petroleum traffic manager in 1950, Mr. Hoverson had been general

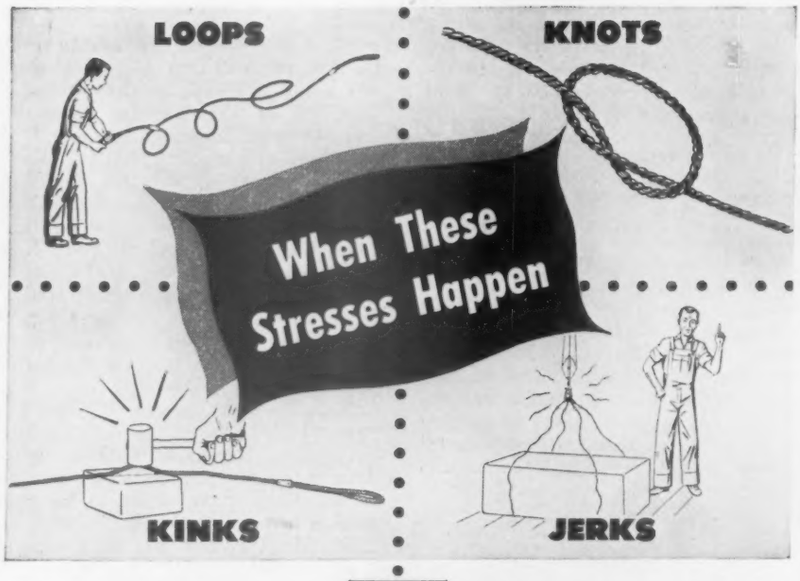
F. P. Wagner

agent at Des Moines, Spokane, Wash., and Tulsa, Okla.

Mr. Stewart's railway career began with the Rock Island at Cedar Rapids, Iowa, in 1916. In 1923 he joined the CGW at Kansas City, where he served in clerical and solicitation capacities until his promotion to general agent at Waterloo, Iowa, in 1935. In 1946, after having served as general agent at Waterloo, Chicago, and Omaha, he was appointed assistant general freight agent at Omaha.

Mr. Soderholm was born May 8, 1909, at Chicago and entered railroad service September 1, 1923, with the Chicago & North Western at Chicago. He joined the CGW March 1, 1929, as rate clerk in the Chicago commercial office, subsequently serving as chief clerk, traffic agent and perishable freight agent, all at Chicago. After serving in the United States Army from January 1941 to December 1945, Mr. Soderholm became general agent for the CGW at Chicago in June 1946, transferring to Spokane a year later and to Washington, D.C., on August 1, 1950.

Raymond J. Steiner, general passenger agent, has been appointed as-



–the BRAIDED CONSTRUCTION OF

Tuffy® SLINGS

PREVENTS DAMAGE

Only Tuffy gives you the 9 part machine-braided wire fabric construction that (1) actively fights off knots and kinks, yet (2) stands up longer if such stresses of distortion occur. These two extra Tuffy advantages assure you of longer sling service that can help you save up to 40% on sling costs.

FREE Sling Sample: Test Tuffy yourself! Get your 3-ft. sample. Then, knot it –kink it if you can–put it to the test. See how readily Tuffy straightens out – without damage!

FREE Sling Handbook! New! Complete! Only handbook of its kind in the braided sling field. Factual, useful data, graphically illustrated to help you cut sling costs.

MAIL COUPON TODAY!

union Wire Rope **corporation**

Specialists *In Wire Rope and Braided Wire Fabric*

2256 Manchester Ave., Kansas City 3, Mo.

☐ Send FREE Tuffy Sling Handbook and Rigger's Manual

☐ Have my Union Wire Rope Fieldman deliver to me FREE a 3-Ft. sample Tuffy Sling

*Firm Name*_____

*By*_____ *Title*_____

*Address*_____ *City*_____ *State*_____

sistant passenger traffic manager of the CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA at St. Paul. Mr. Steiner began his railway career with the CStPM&O in 1937 as a stenographer, and since 1938 has been connected with the passenger traffic department. In 1941 he was appointed special passenger agent, in 1943 traveling passenger agent, and two years later assistant general passenger agent. During 1947 he was promoted to general passenger agent.

Norman H. Jones, general passenger agent of the CHICAGO & NORTH WESTERN, has been promoted to assistant passenger traffic manager. **Charles E. Quackenbush,** assistant general passenger agent, has been named general passenger agent, and **Rico B. Krehl,** chief clerk, has become assistant general passenger agent. Mr. Jones started service with the C&NW as a ticket seller at Omaha in 1918, and from 1919 to 1926 worked as assistant ticket agent at Carroll, Iowa, Chicago, and Omaha. He became city agent at New York in 1926, and in 1939 was promoted to district passenger agent. He returned to Chicago six years later as assistant general passenger agent, and in 1947 was promoted to general passenger agent.

Mr. Quackenbush joined the North Western in 1915 as a messenger at Chicago. In 1917 he was appointed passenger rate clerk, and in 1943 chief rate clerk. A year later he was named chief clerk. His appointment to assistant general passenger agent occurred in 1947.

T. P. Wadsworth, assistant general freight agent of the WESTERN PACIFIC, has been named assistant freight traffic manager of the WP and its subsidiaries the SACRAMENTO NORTHERN and the TIDEWATER SOUTHERN. Succeeding Mr. Wadsworth is **L. B. Larson,** office manager of the traffic department. Mr. Wadsworth joined the WP in 1929 as a rate clerk in the traffic department, advancing to the position of assistant general freight agent in 1940. Mr. Wadsworth is a graduate of the University of California and holds a Strathcona Fellowship in transportation economics from Yale University. He is a dean of the School of Traffic of Golden Gate College at San Francisco.

As reported in *Railway Age* December 29, 1952, page 54, **Charles A. Sturtevant** has been appointed general freight agent of the NORFOLK SOUTHERN at Norfolk, Va. Mr. Sturtevant was born at Portsmouth, Va., May 17, 1910, and entered railroad service January 16, 1928, with the Seaboard Air Line. He had 25 years of continuous service in the SAL traffic department, serving in such positions as file clerk, tariff index clerk, tariff compiler, assistant quotation clerk, assistant claim clerk, divisions clerk, and rate clerk. He was appointed chief claim clerk in February 1942, chief

quotation clerk in August 1942, executive rate clerk in March 1944, and commerce agent in February 1949. Mr. Sturtevant held the latter position until December 15, 1952, when he joined the NS as general freight agent.

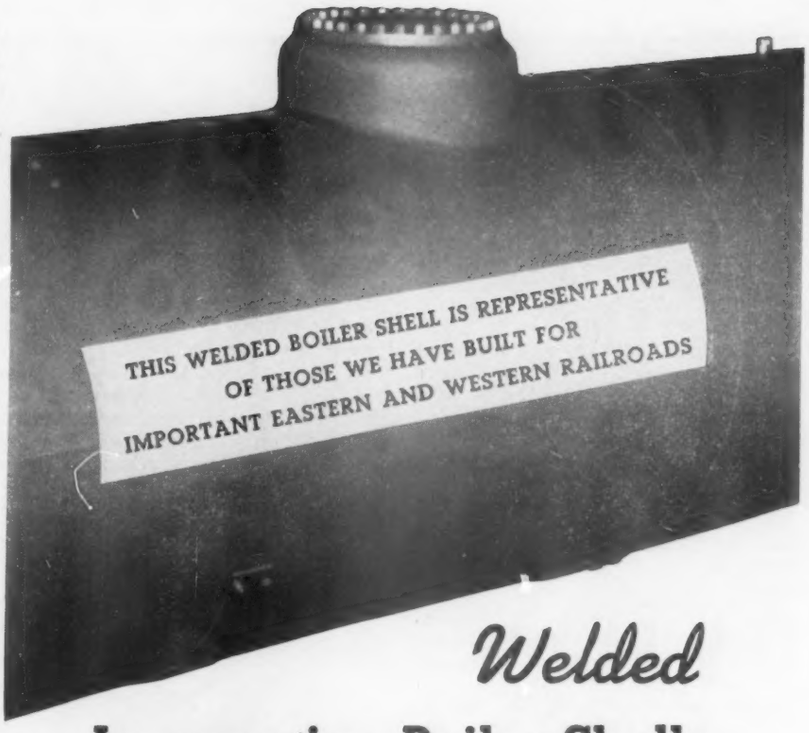
Robert C. Stubbs, freight traffic manager—sales of the CHICAGO & NORTH WESTERN at Chicago, has been appointed assistant general traffic manager. **Iver S. Olsen,** traffic manager at St. Louis, has been promoted to freight traffic manager—sales at Chicago.

Robert C. Stubbs

Mr. Stubbs was born at Morrow, Ohio, December 31, 1904, and joined the North Western in 1925 as a clerk at Cincinnati. He spent two years in the Philadelphia traffic office before being transferred to Chicago in 1928. In 1938 he became division freight agent at Chicago; two years later was promoted to assistant general freight agent, and one year later to assistant traffic manager. He was appointed freight traffic manager—sales in 1947.

Iver S. Olsen

Mr. Olsen began as a stenographer and general clerk in North Western's freight department at Chicago in 1920. Since then he has served successively as city agent at Chicago, commercial agent at the Union Stock Yards, and general agent at St. Louis, becoming traffic manager there in 1951.



Welded

Locomotive Boiler Shells

are... Lighter... Stronger... and last longer... They are virtually leakproof

Be sure your new or replacement locomotive boiler shells are...Welded Shells by Elesco. This policy p-a-y-s. We have the proper facilities and experience to follow the A.S.M.E. Boiler Code for all-welded boilers.

* * *

This company has produced thousands of welded pressure vessels of every type and size. We have complete facilities and equipment for: FORMING—MACHINING—WELDING—X-RAYING and STRESS RELIEVING.

ELESCO

THE SUPERHEATER COMPANY

Division of COMBUSTION ENGINEERING-SUPERHEATER, INC.

200 Madison Ave., NEW YORK, 16

Montreal, Canada, THE SUPERHEATER COMPANY, Ltd.

Superheaters • Pyrometers • Injectors • Steam Driers • Feedwater Heaters
Steam Generators • Oil Separators • American Throttles • Welded Boilers

William D. Wakeman, general foreign freight agent of the CENTRAL OF NEW JERSEY, has been appointed general freight agent in charge of rates, at New York, succeeding **Charles N. Bissell,** retired. **Emanuel T. Libby** succeeds Mr. Wakeman as general foreign freight agent at New York. **John M. Gehring** has been named general agent at Boston, succeeding **Clifford H. McNab,** who has been transferred to St. Louis to succeed **Frank H. Witting,** deceased.

J. A. McRoberts has been appointed general agent of the CHICAGO GREAT WESTERN at Kansas City, Mo.

M. H. Smith has been appointed assistant general freight agent (rates and routes) of the ILLINOIS TERMINAL. **G. I. Moseley** has been named assistant general freight agent (divisions). Both will have headquarters at St. Louis.

Melvin L. Mollman, assistant to general freight agent of the BALTIMORE & OHIO at Pittsburgh, has been appointed assistant general freight agent at Baltimore, to succeed the late **T. E. Hentz.**

Sydney W. Palmer has been appointed general agent—traffic of the CENTRAL OF GEORGIA and the SAVANNAH & ATLANTA at Waynesboro, Ga.

MECHANICAL

H. C. Haupt, assistant master mechanic (car) of the NEW YORK CENTRAL at Buffalo, has been appointed general car inspector, system at New York, succeeding **J. J. Larson,** who has been appointed superintendent, East Buffalo (N. Y.) car shop.

C. E. Pond, assistant superintendent motive power—car of the NORFOLK & WESTERN at Roanoke, Va., has been named superintendent motive power, a new position. **C. S. Patton, Jr.,** assistant to superintendent motive power, has been promoted to assistant superintendent motive power—car, succeeding Mr. Pond. **Robert M. Stickley, Jr.,** general foreman, locomotive department, has been promoted to assistant to superintendent motive power, succeeding Mr. Patton.

Mr. Pond was graduated from Virginia Polytechnic Institute (1923) and joined the N&W as special apprentice in the Roanoke shops that same year. He then served successively as shop inspector, assistant engineer of tests, assistant shop foreman, shop foreman, general foreman of foundry, assistant master mechanic of the Radford and Shenandoah divisions, and assistant to superintendent motive power. He was promoted to assistant superintendent motive power—car in October 1952.

Mr. Patton, a graduate of the University of Georgia, joined the N&W as special apprentice, Roanoke shops, in January 1937. He subsequently served as helper car inspector, gang leader, gang foreman, car foreman, foreman of Roanoke passenger car shop, and general foreman of car department. Mr. Patton was appointed assistant to superintendent motive power in October 1952.

ENGINEERING

Clifford T. Gunsallus has been appointed assistant chief engineer of the NEW YORK CENTRAL at New York, as reported in *Railway Age* January 12, page 265. Mr. Gunsallus was born at Beech Creek, Pa., 53 years ago and received his civil engineering degree from Pennsylvania State College. While in college he worked summers for the

Clifford T. Gunsallus

NYC and upon graduation joined the road as a chainman at Utica, N.Y. After serving as supervisor of track at various locations from 1927 to 1936, he was promoted to supervisor in 1936. In 1943 he was named division engineer at Watertown, N.Y., and in 1947 became district engineer of the Boston & Albany at Boston, where he remained until his recent appointment.

W. P. Hendrix, designing engineer, Central region, of the PENNSYLVANIA, has been appointed assistant engineer in the office of chief engineer—maintenance of way of the western region, at Chicago, succeeding **J. W. Reed.**

OBITUARY

A. P. Mootz, assistant to vice-president, traffic, of the NORTHERN PACIFIC, died at his home in St. Paul on January 15 following a short illness. A graduate of St. Thomas College, Mr. Mootz entered NP service as a timekeeper, going into traffic work as a rate clerk at Minneapolis in 1922. After serving as chief clerk there, he went to St. Paul as traveling freight agent, and became assistant general freight agent at that point in 1939. He was promoted to his last position in 1947.

Arthur C. McCarthy, who retired as general manager of the GRAND TRUNK WESTERN on January 1 because of ill health, died on January 21 at Duke University Hospital in Durham, N. C. Mr. McCarthy was born

Arthur C. McCarthy

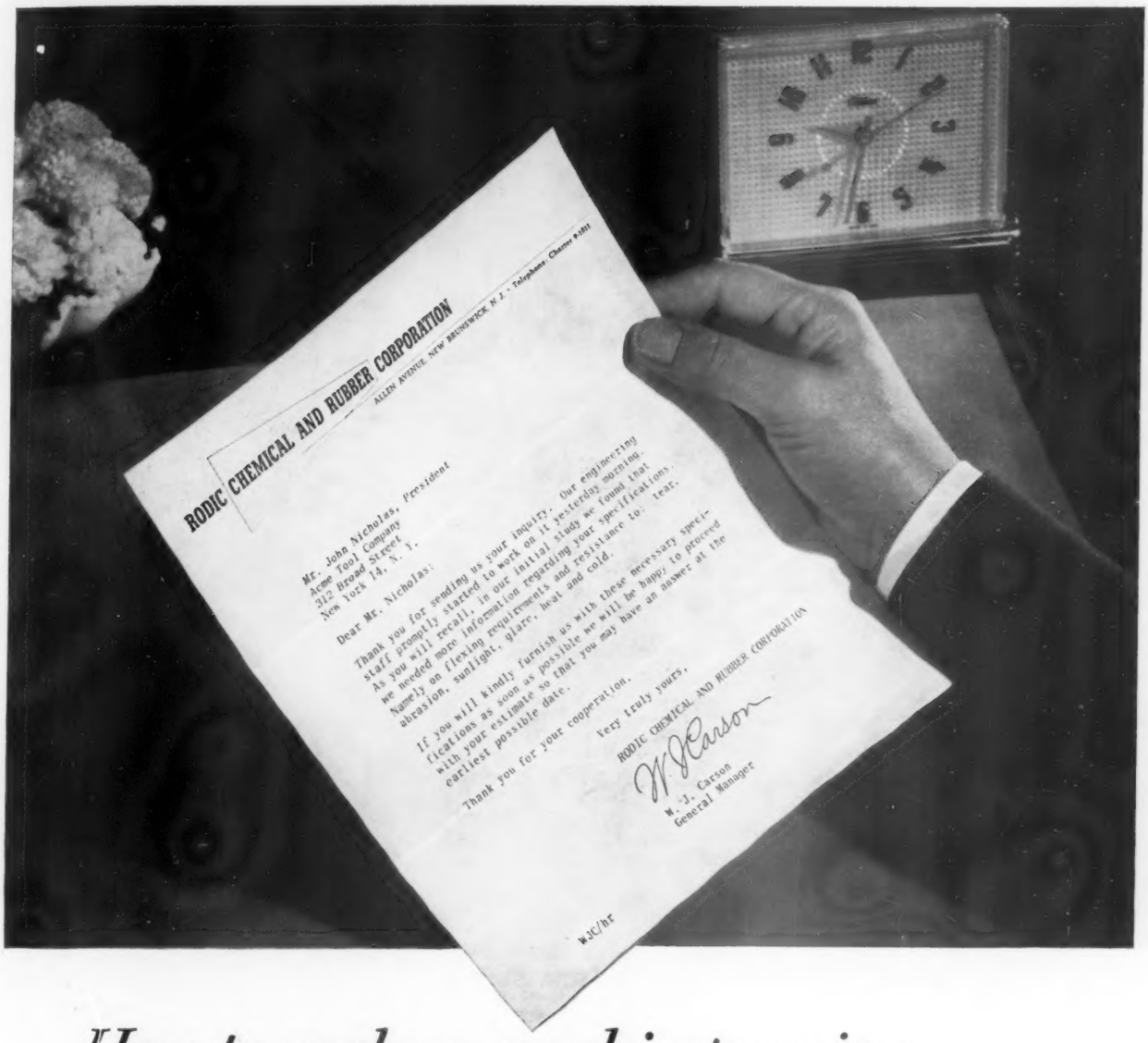
at Detroit, December 15, 1897, and joined the GTW as a demurrage inspector there in 1918. In 1927 he was named district supervisor of car service, and became superintendent of car service in 1939. Six years later he was appointed superintendent of transportation and in 1948 became general superintendent. He was promoted to general manager in October 1951.

J. J. Cooper, assistant superintendent of freight operations of the SANTA FE TRANSPORTATION COMPANY, died on January 28 at Oakland, Cal.

Eugene G. Nahler, vice-president and general counsel of the ST. LOUIS-SAN FRANCISCO at St. Louis, died recently. Mr. Nahler was born at St. Louis; attended Benton College of

Eugene G. Nahler

Law; was admitted to the Missouri bar in 1913, and entered railroad service with the Terminal Railroad Association of St. Louis in 1905. He joined the law department of the Frisco in May 1913, and served successively as attorney, general attorney and general solicitor, becoming vice-president and general counsel in July 1949.


RODIC CHEMICAL AND RUBBER CORPORATION
ALLEN AVENUE, NEW BRUNSWICK, N. J. - Telephone: Chester 4-1851
Mr. John Nicholas, President
Acme Tool Company
312 Broad Street
New York 14, N. Y.
Dear Mr. Nicholas:
Thank you for sending us your inquiry. Our engineering staff promptly started to work on it yesterday morning. As you will recall, in our initial study we found that we needed more information regarding your specifications, namely on flexing requirements and resistance to: tear, abrasion, sunlight, glare, heat and cold.
If you will kindly furnish us with these necessary specifications as soon as possible we will be happy to proceed with your estimate so that you may have an answer at the earliest possible date.
Thank you for your cooperation.
Very truly yours,
RODIC CHEMICAL AND RUBBER CORPORATION
W. J. Carson
General Manager
WJC/hr

How to make a good impression in a 10-second appointment!

One sure way is to have your business letter (your most important line of communication) typed on a Remington Electri-conomy. You'll find the Electri-conomy letter stands apart from all others! Its sharp, distinctively-uniform printwork commands attention, looks IMPORTANT. Wherever your letter goes it sells you and your railroad on sight. Proof? See a free demonstration today. Discover, too, how the Electri-conomy steps up the production of carbon copies, tracers and waybills, payrolls, requisitions and vouchers—in fact, all your typewritten work.

Remington Rand INC

THE FIRST NAME IN TYPEWRITERS

For free demonstration or booklet "Take a Letter" (RE8499) write: Remington Rand, Room 2627, 315 Fourth Ave., New York 10, N.Y.

TM

New power ...and control for heavy freight

The Train Master locomotive—with its 2400 horsepower per unit, six traction motors, 78,750 pounds continuous T.E. and 375,000 pounds on drivers—is a sure-footed motive power unit unequalled for handling heaviest drags.

Hauling high tonnages requires high pulling power—and effective control. Train Master's dynamic brake—50% greater than its tractive effort horsepower—provides that control.

On severe grades . . . in starting . . . accelerating . . . stopping . . . under all conditions and loads, this locomotive is truly master of its train. And remember, Train Master versatility means that it is always the right locomotive for the *next* job, too!

Always master of its train, the Fairbanks-Morse Train Master . . . the most useful locomotive ever built.

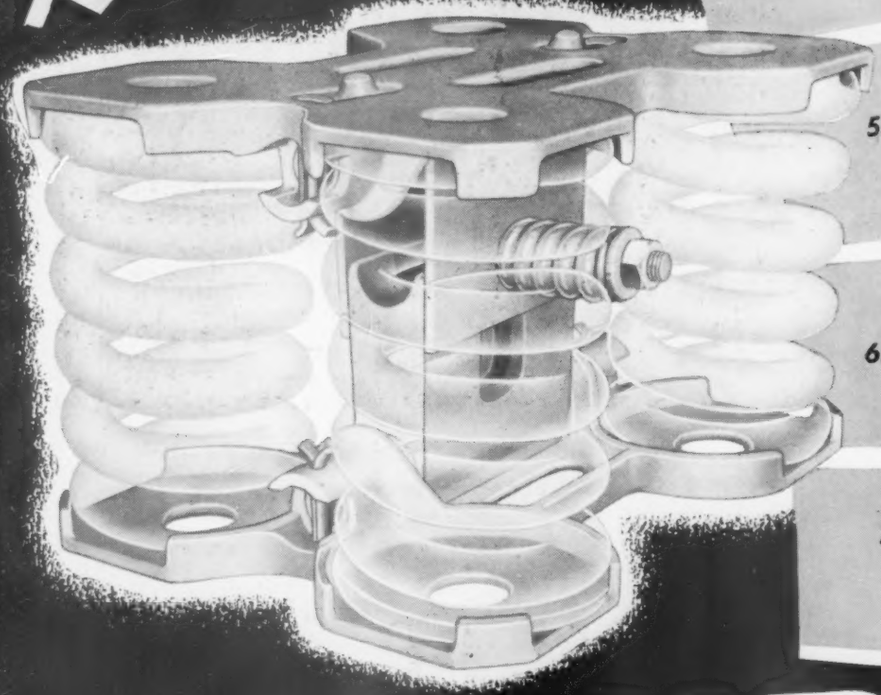
FAIRBANKS-MORSE

a name worth remembering when you want the best

DIESEL LOCOMOTIVES AND ENGINES • RAIL CARS AND RAILROAD EQUIPMENT • ELECTRICAL MACHINERY • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAMMER MILLS • MAGNETOS

7 REASONS

1. Reduce lading and equipment damage.
2. No reduction in truck spring capacity.
3. Large frictional area—long life.
4. Spring travel— 1⅝" to 2½".
5. Working parts visible for inspection
6. Absorbs vertical and lateral shocks.
7. Reduces freight claims immediately.



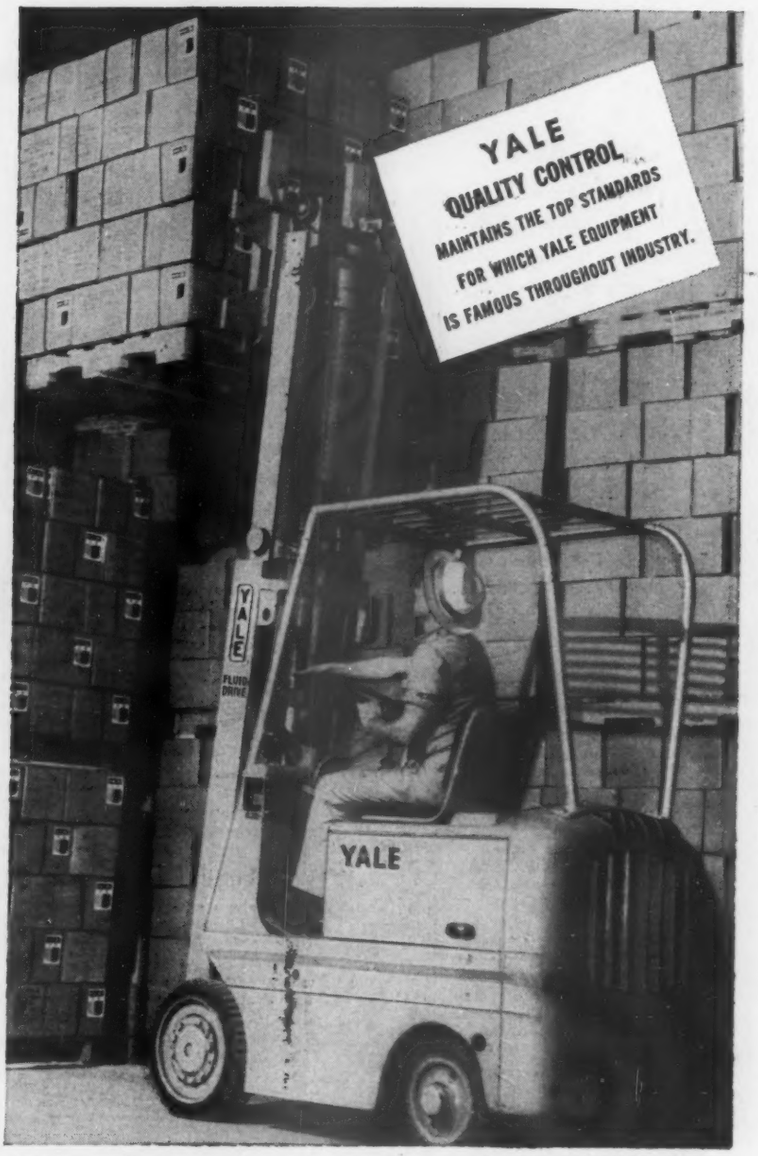
for SNUB-UP SNUBBERS

R-2

RAILWAY TRUCK CORPORATION

1928 WEST 46th STREET CHICAGO 9, ILLINOIS

Again in '53 YALE sets the pace



Give this great YALE truck every test you know. Run it fully loaded on ramps, indoors and out. See the power it delivers... the fuel economy it gives. Let operators test it for smoothness...for maneuverability... for safety...and you'll see why it's the standout truck of this or any other year.

Features no other truck combines

1. Fluid Drive...gives 3 to 8 times longer clutch life
2. 65 HP industrial engine built for rugged continuous service
3. Automotive Type Brakes with extra braking surface
4. Shockless steering...for greater operating ease and safety
5. Hypoid Gears oil-sealed against dirt and dust, give drive 30% more strength against shock loads

A line that meets every materials handling need

Whatever type of truck will serve you best—Gas, Electric or Diesel powered—you'll find it in YALE's comprehensive line.

Also ask for full information on the numerous attachments Yale makes available for special handling problems.

YALE* MATERIALS HANDLING EQUIPMENT

MAIL THIS COUPON TODAY

The YALE & TOWNE Manufacturing Co., Dept. 482
Roosevelt Blvd. and Haldeman Ave., Phila. 15, Pa.

☐ Please send me *The Picture Story of Yale Materials Handling Equipment*

☐ Please have your local representative call for an appointment

Company_____

Name_____ Title_____

Street_____ City_____ State_____

In Canada write: The Yale & Towne Mfg. Co., Box 337—Postal Station "A"—Toronto

*Registered trade mark

Gas and Electric Industrial Trucks • *Worksavers* • Hand Trucks • Hand and Electric Hoists • Pul-lifts

Freight Operating Statistics of Large Railways — Selected Items

Region, Road and Year		Miles of road operated	Locomotive Miles: Train-miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (*thousands*)	Car Miles: Per cent loaded	Ton-miles (*thousands*): Gross excl.locos. & tenders	Ton-miles (*thousands*): Net rev. and non-rev.	Road-locos. on line: Serviceable: Unstored	Road-locos. on line: Serviceable: Stored	Road-locos. on line: B.O.	Road-locos. on line: Per cent B.O.
New Eng. Region	Boston & Maine	1952	1,672	252,828	262,809	14,389	10,427	67.9	667,284	275,819	79	7	11	11.3
		1951	1,690	268,882	277,642	13,762	10,208	69.7	650,370	280,903	88	3	11	10.8
	N. Y., N. H. & Htfd	1952	1,764	295,798	295,972	14,970	12,368	73.4	760,316	345,571	96	..	4	4.0
		1951	1,765	297,879	297,897	18,606	11,412	70.5	705,797	309,690	95	..	7	6.9
Great Lakes Region	Delaware & Hudson	1952	793	209,224	215,730	11,844	10,564	72.8	721,167	385,495	53	55	19	15.0
		1951	793	236,704	275,085	20,395	10,534	74.0	736,377	407,996	105	17	33	21.3
	Del., Lack. & Western	1952	962	276,468	292,137	25,664	12,833	69.9	841,428	386,284	70	4	4	5.1
		1951	964	278,819	299,718	29,464	12,457	70.8	827,471	393,109	77	8	9	9.6
	Erie	1952	2,242	589,593	595,638	31,020	34,465	69.5	2,134,039	885,719	176	..	1	.6
		1951	2,243	618,239	628,506	31,462	34,027	68.0	2,164,447	907,535	172	11	18	9.0
	Grand Trunk Western	1952	952	259,554	267,418	2,681	8,552	63.2	610,106	270,992	66	..	12	15.4
		1951	952	258,692	264,923	2,181	8,549	64.5	578,114	250,812	57	..	15	20.8
	Lehigh Valley	1952	1,206	228,877	233,665	11,410	11,917	70.0	794,295	379,038	33	..	2	5.7
		1951	1,210	239,763	248,178	15,691	12,468	72.8	808,473	394,591	36	5	6	12.8
	New York Central	1952	10,668	2,744,190	2,829,459	117,348	110,376	62.1	7,979,011	3,646,737	766	73	239	22.2
		1951	10,675	2,951,840	3,121,436	153,902	107,573	62.2	7,758,260	3,553,530	958	112	320	23.0
	New York, Chic. & St. L.	1952	2,160	798,785	823,266	9,002	31,967	66.1	2,279,937	1,037,059	201	..	45	18.3
		1951	2,161	793,086	811,288	11,266	29,765	65.6	2,092,114	986,982	203	15	37	14.5
	Pitts. & Lake Erie	1952	221	80,128	80,988	91	3,646	67.4	308,151	189,146	29	5	15	30.6
		1951	221	84,428	86,923	....	3,552	65.1	285,610	162,498	33	3	14	28.0
	Wabash	1952	2,381	539,214	545,346	7,877	23,354	68.3	1,495,066	610,589	118	23	37	20.8
		1951	2,381	521,838	527,767	8,458	22,350	71.3	1,416,169	621,991	121	21	36	20.2
Central Eastern Region	Baltimore & Ohio	1952	6,082	1,656,763	1,860,842	187,451	68,578	63.4	5,185,139	2,585,413	549	26	153	21.0
		1951	6,083	1,735,297	2,022,769	225,177	66,375	63.3	5,122,043	2,558,339	630	49	168	19.8
	Central of New Jersey	1952	411	71,261	71,739	4,185	2,773	66.1	206,239	107,920	32	..	3	8.6
		1951	412	71,338	71,486	3,443	2,803	66.9	210,248	111,616	43	..	5	10.4
	Central of Pennsylvania	1952	207	61,513	66,411	8,765	2,551	70.7	185,752	101,145	32	3	9	20.5
		1951	208	70,290	79,149	14,579	2,590	69.9	194,379	107,384	35	..	6	14.6
	Chicago & Eastern Ill.	1952	868	133,764	133,764	3,487	5,640	67.5	395,905	200,356	27	..	3	10.0
		1951	886	127,963	127,963	3,598	4,771	64.4	307,209	157,103	26	..	3	10.3
	Elgin, Joliet & Eastern	1952	236	95,170	96,136	224	3,347	64.8	267,426	145,304	42	..	..	..
		1951	238	96,932	97,915	126	3,415	63.9	275,309	149,816	45	..	..	..
	Pennsylvania System	1952	9,961	3,167,025	3,421,446	327,618	136,369	66.9	9,800,641	4,871,778	1,071	23	355	24.5
		1951	10,041	3,131,483	3,389,403	358,113	131,280	66.4	9,393,021	4,661,911	1,147	85	349	22.1
	Reading	1952	1,318	369,367	377,156	20,915	15,115	66.0	1,205,160	665,631	177	14	16	7.7
		1951	1,311	391,108	403,509	27,150	14,495	66.6	1,144,347	636,301	188	32	33	13.0
	Western Maryland	1952	836	198,969	237,939	28,695	7,138	63.5	593,893	335,244	125	6	9	6.4
		1951	837	194,689	228,542	25,530	6,706	62.7	554,934	309,572	126	6	19	12.6
Pocahontas Region	Chesapeake & Ohio	1952	5,037	1,333,231	1,376,185	44,238	62,598	57.8	5,398,443	3,029,676	431	66	160	24.4
		1951	5,043	1,483,936	1,559,064	69,095	66,075	56.2	5,882,937	3,286,305	496	5	215	30.0
	Norfolk & Western	1952	2,113	692,539	732,116	51,665	33,376	60.2	2,962,068	1,628,942	236	24	22	7.8
		1951	2,113	773,719	824,282	67,203	35,416	57.8	3,240,184	1,771,480	246	8	22	8.0
Southern Region	Atlantic Coast Line	1952	5,460	783,432	783,456	8,742	25,682	62.6	1,819,190	849,920	281	16	17	5.4
		1951	5,434	815,077	815,410	12,312	25,328	61.6	1,829,903	858,294	386	29	85	17.0
	Central of Georgia	1952	1,754	200,297	207,472	2,973	7,525	69.7	502,861	236,890	79	17	1	1.0
		1951	1,765	233,702	235,324	3,942	7,338	68.9	496,585	231,099	86	10	7	6.8
	Gulf, Mobile & Ohio	1952	2,718	316,474	316,474	290	17,305	72.4	1,141,186	558,639	84	..	5	5.6
		1951	2,851	329,331	329,331	132	16,895	70.6	1,104,395	516,045	81	..	5	5.8
	Illinois Central	1952	6,539	1,595,108	1,598,744	54,092	54,875	61.8	4,043,967	1,863,523	551	11	81	12.6
		1951	6,539	1,646,594	1,652,891	58,147	56,559	61.2	4,179,656	1,916,415	587	7	68	10.3
	Louisville & Nashville	1952	4,729	965,573	1,026,567	26,073	35,267	63.8	2,600,359	1,329,354	242	55	48	13.9
		1951	4,756	1,030,152	1,083,021	30,030	35,808	63.6	2,655,918	1,364,620	277	40	80	20.2
	Nash., Chatt. & St. Louis	1952	1,032	194,379	197,549	3,278	6,251	72.9	404,559	195,167	49	..	4	7.5
		1951	1,032	199,991	203,139	3,168	6,400	72.0	417,147	200,190	54	..	6	10.0
	Seaboard Air Line	1952	4,070	609,080	609,080	401	24,051	65.5	1,707,354	766,782	148	72	5	2.2
		1951	4,136	672,066	680,578	1,821	24,235	65.3	1,691,707	782,029	201	67	12	4.3
	Southern	1952	6,264	1,019,158	1,019,204	11,429	40,071	72.0	2,538,594	1,186,037	257	31	4	1.4
		1951	6,263	1,151,838	1,153,017	12,542	41,031	70.0	2,657,689	1,245,121	355	56	118	22.3
Northwestern Region	Chicago & North Western	1952	7,872	814,867	823,031	18,175	32,420	66.2	2,277,637	1,005,020	313	4	88	21.7
		1951	7,889	847,778	857,571	22,394	31,381	65.2	2,196,648	1,019,883	277	12	158	35.3
	Chicago Great Western	1952	1,441	141,721	142,092	1,969	8,823	69.3	587,367	266,384	34	..	1	3.0
		1951	1,441	149,666	150,020	6,747	8,244	66.7	556,007	246,127	32	..	2	5.9
	Chic., Milw., St. P. & Pac.	1952	10,627	1,152,276	1,184,172	42,834	46,809	64.6	3,180,955	1,422,392	376	63	73	14.3
		1951	10,663	1,185,016	1,225,676	47,462	46,273	65.7	3,123,930	1,424,046	439	34	65	12.1
	Chic., St. P., Minn. & Omaha	1952	1,606	185,053	190,502	8,795	6,067	69.0	412,795	190,196	71	..	22	23.7
		1951	1,606	190,570	196,342	9,853	5,579	66.0	391,843	177,439	70	..	37	34.6
	Duluth, Missabe & Iron Range	1952	569	165,520	166,341	1,350	7,222	50.5	698,448	387,478	76	..	2	2.6
		1951	567	147,292	147,650	940	5,778	50.6	523,685	285,140	64	..	4	5.9
	Great Northern	1952	8,313	1,227,671	1,232,429	42,905	47,077	63.8	3,460,829	1,651,800	324	113	70	13.8
		1951	8,309	1,166,137	1,167,578	48,246	43,723	64.9	3,170,586	1,495,806	339	122	61	11.7
	Minneap., St. P. & S. St. M.	1952	4,172	405,432	411,486	4,001	13,699	64.4	931,049	433,019	114	..	12	9.5
		1951	4,173	415,117	422,358	5,404	13,642	66.0	926,279	441,647	114	1	15	11.5
	Northern Pacific	1952	6,585	814,470	840,871	37,819	32,782	68.6	2,204,474	1,032,745	314	19	72	17.8
		1951	6,591	847,030	878,337	44,207	34,002	70.2	2,343,868	1,091,371	336	4	69	16.9
Southwestern Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1952	13,072	2,639,424	2,763,525	114,434	111,764	64.7	7,462,937	2,856,727	625	55	106	13.5
		1951	13,096	2,738,687	2,827,417	106,341	112,241	64.1	7,684,357	3,035,582	598	47	176	21.4
	Chic., Burl. & Quincy	1952	8,832	1,310,534	1,322,369	45,771	54,477	64.7	3,770,722	1,708,764	359	6	128	26.0
		1951	8,791	1,237,901	1,256,713	47,830	52,215	66.4	3,576,870	1,648,782	370	30	132	24.8
	Chic., Rock I. & Pac.	1952	7,902	951,873	948,730	8,129	37,593	63.9	2,638,221	1,146,700	196	27	25	10.1
		1951	7,902	1,038,234	1,050,684	21,358	37,592	63.0	2,723,812	1,212,372	223	23	45	15.5
	Denver & R. G. Wn.	1952	2,333	383,908	419,793	43,046	17,134	72.5	1,171,223	608,006	101	21	33	21.3
		1951	2,334	381,443	422,838	52,913	16,098	70.5	1,111,405	530,401	119	12	35	21.1
	Southern Pacific	1952	8,058	2,237,914	2,369,243	265,854	98,409	65.1	6,689,280	2,785,664	726	4	145	16.6
		1951	8,082	2,131,905	2,240,338	257,339	91,674	65.9	6,171,406	2,577,590	674	4	161	19.2
	Union Pacific	1952	9,831	2,916,066	3,026,939	205,565	116,100	68.4	7,706,727	3,355,351	669	19	115	14.3
		1951	9,756	2,718,825	2,825,344	190,501	110,730	65.2	7,605,870	3,313,443	644	19	145	17.9
	Western Pacific	1952	1,190	267,408	273,342	21,059	12,535	70.7	829,301	389,123	47	8	3	5.2
		1951	1,190	254,027	258,348	18,798	12,360	73.8	772,519	357,402	42	13	14	20.3
Central Western Region	International-Gt. Northern*	1952	1,104	178,681	178,681	12	6,461	66.0	494,391	227,007	61	..	4	6.2
		1951	1,104	192,045	192,347	....	6,216	64.7	497,488	222,789	45	1	14	23.3
	Kansas City Southern	1952	886	184,136	184,164	742	9,794	67.3	684,082	321,454	26	2	5	15.2
		1951	886	181,082	181,248	226	9,349	68.4	649,480	311,468	25	5	15	33.3
	Mo.-Kans.-Texas Lines	1952	3,230	400,064	400,064	5,159	15,617	64.5	1,018,779	423,526	89	5	9	8.7
		1951	3,230	423,865	425,109	6,450	15,347	66.0	1,004,707	441,104	97	14	13	10.5
	Missouri Pacific*	1952	6,932	1,261,966	1,268,417	18,513	49,756	66.9	3,362,878	1,525,379	316	8	63	16.3
		1951	6,932	1,314,839	1,338,330	18,285	48,838	66.0	3,442,668	1,580,180	336	5	55	13.9
	Texas & Pacific	1952	1,832	348,785	348,785	3,661	14,451	63.5	1,023,760	403,040	63	4	8	10.7
		1951	1,844	352,722	352,722	10,951	14,251	65.4	973,140	391,365	69	13	45	35.4
	St. Louis-San Francisco	1952	4,567	650,645	650,645	6,279	24,664	63.6	1,706,250	754,985	186	15	23	10.3
		1951	4,570	669,226	673,684	6,481	23,706	64.1	1,614,186	710,344	185	70	90	26.1
	St. Louis Southw. Lines	1952	1,562	334,199	334,233	4,613	14,615	72.3	890,450	398,043	59	16	12	13.8
		1951	1,562	327,207	328,868	4,461	14,298	75.2	868,159	388,079	74	20	19	16.8
	Texas & New Orleans	1952	4,280	788,612	791,148	18,653	28,836	64.5	2,012,275	884,614	215	..	26	10.8
		1951	4,291	779,856	779,856	15,304	28,360	67.2	1,930,012	861,892	223	..	49	18.0

For the Month of November 1952 Compared with November 1951

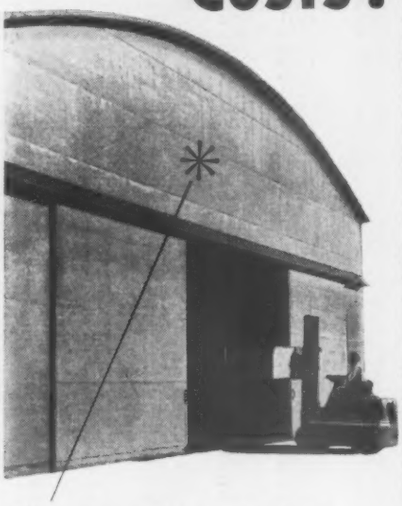
Region	Road	Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos. and tenders	G.t.m. per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine	1952	1,172	8,714	9,886	2.8	43,935	2,643	1,093	26.5	932	51.8	5,499	16.6	102.8
		1951	1,194	8,426	9,620	2.2	39,519	2,423	1,046	27.5	937	48.8	5,541	16.3	101.4
	N. Y., N. H. & Hfd	1952	995	15,838	16,833	2.1	39,153	2,571	1,169	27.9	696	33.9	6,530	15.2	115.6
		1951	1,254	13,979	15,233	3.2	35,385	2,373	1,041	27.1	662	34.6	5,849	14.9	115.1
Great Lakes Region	Delaware & Hudson	1952	4,169	5,908	10,077	3.1	65,890	3,466	1,853	36.5	1,339	50.4	16,204	19.1	68.0
		1951	3,054	6,143	9,197	5.3	59,271	3,123	1,730	38.7	1,441	50.2	17,150	19.1	67.2
	Del., Lack. & Western	1952	4,182	10,943	15,125	4.9	52,771	3,093	1,420	30.1	888	42.2	13,385	17.3	150.9
		1951	4,004	11,213	15,217	5.9	47,225	3,022	1,436	31.6	864	38.7	13,593	15.9	123.9
	Erie	1952	7,080	20,182	27,262	4.1	67,280	3,652	1,516	25.7	1,039	58.1	13,169	18.6	129.7
		1951	5,237	22,658	27,895	3.5	61,295	3,530	1,480	26.7	1,059	58.4	13,487	17.5	119.7
	Grand Trunk Western	1952	3,421	9,506	12,927	4.7	48,949	2,372	1,054	31.7	711	35.5	9,489	20.8	127.8
		1951	3,281	8,752	12,033	4.1	46,197	2,246	975	29.3	665	35.1	8,782	20.7	138.1
	Lehigh Valley	1952	2,426	11,213	13,639	3.8	69,712	3,536	1,687	31.8	927	41.6	10,476	20.1	246.9
		1951	1,842	13,527	15,369	6.6	64,048	3,410	1,664	31.6	851	36.8	10,870	19.0	189.5
	New York Central	1952	61,199	107,650	168,849	8.1	49,278	2,962	1,354	33.0	733	35.7	11,395	16.9	101.3
		1951	51,854	110,652	162,506	5.8	43,560	2,671	1,224	33.0	738	35.9	11,096	16.6	87.1
	New York, Chic. & St. L.	1952	5,884	19,133	25,017	5.3	50,045	2,901	1,319	32.4	1,355	63.2	16,004	17.5	122.3
		1951	5,616	20,940	26,556	4.1	46,724	2,671	1,260	33.2	1,204	55.3	15,224	17.7	116.0
	Pitts. & Lake Erie	1952	2,847	11,139	13,986	4.9	55,007	3,846	2,361	51.9	453	13.0	28,529	14.3	58.8
		1951	2,917	8,260	11,177	8.4	51,175	3,385	1,926	45.7	457	15.3	24,510	15.1	62.1
	Wabash	1952	7,083	12,366	19,449	8.0	64,454	2,790	1,139	26.1	1,019	57.1	8,548	23.2	109.5
		1951	7,009	13,694	20,703	5.0	57,247	2,740	1,203	27.8	940	47.4	8,708	21.1	106.4
Central Eastern Region	Baltimore & Ohio	1952	47,084	50,607	97,691	7.4	45,138	3,171	1,581	37.7	893	37.4	14,170	14.4	97.6
		1951	43,345	54,695	98,040	5.0	40,471	2,988	1,493	38.5	886	36.3	14,019	13.7	90.3
	Central of New Jersey	1952	401	9,090	9,491	4.0	38,235	3,020	1,580	38.9	398	15.5	8,753	13.2	105.9
		1951	345	9,793	10,138	2.9	36,281	3,066	1,628	39.8	380	14.2	9,030	12.3	83.6
	Central of Pennsylvania	1952	1,464	3,631	5,095	14.5	43,309	3,173	1,728	39.6	693	24.7	16,287	14.3	70.2
		1951	1,291	3,585	4,876	20.2	38,552	2,999	1,657	41.5	753	26.0	17,209	13.9	94.0
	Chicago & Eastern Ill.	1952	2,238	3,716	5,954	6.4	49,065	2,971	1,504	35.5	1,083	45.2	7,694	16.6	159.4
		1951	1,576	3,574	5,150	5.0	39,482	2,409	1,232	32.9	1,032	48.7	5,911	16.4	164.6
	Elgin, Joliet & Eastern	1952	6,787	14,719	21,506	3.9	19,346	2,913	1,583	43.4	232	8.2	20,523	6.9	106.6
		1951	5,858	14,607	20,465	2.3	18,548	2,936	1,598	43.9	242	8.6	20,983	6.5	107.0
	Pennsylvania System	1952	104,215	100,883	205,098	9.3	51,026	3,199	1,590	35.7	796	33.3	16,303	16.5	93.8
		1951	95,280	125,052	220,332	7.9	47,288	3,091	1,534	35.5	708	30.0	15,476	15.8	85.8
	Reading	1952	12,967	20,860	33,827	6.0	43,681	3,264	1,803	44.0	684	23.5	16,834	13.4	78.1
		1951	9,970	23,224	33,194	3.9	37,490	2,927	1,627	43.9	632	21.6	16,179	12.8	70.6
	Western Maryland	1952	4,818	4,542	9,360	3.2	43,678	3,058	1,726	47.0	1,273	42.7	13,367	14.6	67.5
		1951	4,349	3,631	7,980	1.9	42,750	2,907	1,622	46.2	1,336	46.1	12,329	15.0	60.1
Pocahontas Region	Chesapeake & Ohio	1952	46,111	23,899	70,010	3.2	72,830	4,081	2,290	48.4	1,382	49.4	20,049	18.0	75.8
		1951	50,291	23,107	73,398	5.4	65,912	4,005	2,237	49.7	1,465	52.4	21,722	16.6	81.4
	Norfolk & Western	1952	29,764	7,457	37,221	2.6	73,060	4,352	2,393	48.8	1,338	45.6	25,697	17.1	101.9
		1951	32,563	8,255	40,818	1.4	67,884	4,263	2,331	50.0	1,462	50.6	27,946	16.2	116.3
Southern Region	Atlantic Coast Line	1952	15,539	19,695	35,234	2.2	38,738	2,334	1,090	33.1	833	40.2	5,189	16.7	92.4
		1951	12,877	20,280	33,157	2.3	35,709	2,256	1,058	33.9	867	41.5	5,265	15.9	59.2
	Central of Georgia	1952	2,515	5,681	8,196	5.6	44,142	2,532	1,193	31.5	933	42.5	4,502	17.6	75.1
		1951	2,275	6,130	8,405	5.1	37,343	2,140	996	31.5	898	41.4	4,364	17.6	82.8
	Gulf, Mobile & Ohio	1952	3,684	11,173	14,857	3.1	69,938	3,618	1,771	32.3	1,172	50.2	6,851	19.4	127.7
		1951	3,178	12,007	15,185	3.1	62,678	3,362	1,571	30.5	1,116	51.7	6,033	18.7	140.8
	Illinois Central	1952	21,792	26,438	48,230	2.4	42,145	2,574	1,186	34.0	1,225	58.4	9,500	16.6	91.6
		1951	23,153	34,832	57,985	1.9	41,810	2,567	1,177	33.9	1,114	53.7	9,769	16.5	93.1
	Louisville & Nashville	1952	31,098	14,447	45,545	4.7	44,087	2,698	1,379	37.7	892	37.1	9,370	16.3	107.2
		1951	26,863	16,218	43,081	7.3	39,364	2,582	1,327	38.1	1,064	43.9	9,564	15.3	101.1
	Nash., Chatt. & St. Louis	1952	1,529	4,443	5,972	3.0	41,252	2,085	1,006	31.2	1,023	44.9	6,304	19.8	138.6
		1951	1,042	5,130	6,172	3.0	40,833	2,090	1,003	31.3	1,046	46.5	6,466	19.6	126.3
	Seaboard Air Line	1952	9,928	15,988	25,916	2.8	51,585	2,838	1,275	31.9	1,015	48.6	6,280	18.4	104.7
		1951	9,677	16,773	26,450	1.7	45,207	2,551	1,179	32.3	1,018	48.3	6,303	18.0	90.0
	Southern	1952	13,539	29,963	43,502	2.8	42,590	2,524	1,179	29.6	915	42.9	6,311	17.1	117.1
		1951	12,496	30,771	43,267	4.6	39,456	2,327	1,090	30.3	959	45.2	6,627	17.1	80.1
Northwestern Region	Chicago & North Western	1952	18,043	31,211	49,254	4.5	47,453	2,912	1,285	31.0	650	31.7	4,256	17.0	75.3
		1951	17,987	29,959	47,946	4.1	42,353	2,713	1,259	32.5	673	31.8	4,309	16.3	70.2
	Chicago Great Western	1952	1,485	6,130	7,615	2.5	75,546	4,151	1,882	30.2	1,179	56.4	6,162	18.2	151.8
		1951	1,567	6,147	7,714	2.9	66,278	3,728	1,650	29.9	1,060	53.2	5,693	17.8	160.5
	Chic., Milw., St. P. & Pac.	1952	29,112	35,319	64,431	3.7	48,810	2,781	1,244	30.4	754	38.4	4,462	17.7	85.5
		1951	29,532	35,842	65,374	3.1	44,093	2,650	1,208	30.8	719	35.5	4,452	16.7	87.4
	Chic., St. P., Minn. & Omaha	1952	1,128	8,220	9,348	2.9	34,989	2,320	1,069	31.3	682	31.5	3,948	15.7	79.0
		1951	1,102	8,065	9,167	3.8	28,869	2,132	965	31.8	626	29.8	3,683	14.0	72.7
	Duluth, Missabe & Iron Range	1952	13,050	1,302	14,352	2.6	75,239	4,443	2,465	53.7	825	30.4	22,699	17.8	80.3
		1951	13,434	1,081	14,515	3.0	65,428	3,688	2,008	49.3	637	25.5	16,763	18.4	79.2
	Great Northern	1952	20,592	23,513	44,105	3.5	48,506	2,855	1,363	35.1	1,250	55.8	6,623	17.2	90.3
		1951	21,253	25,178	46,431	2.8	46,082	2,742	1,294	34.2	1,085	48.9	6,001	16.9	82.7
	Minneap., St. P. & S. St. M.	1952	5,171	9,014	14,185	5.4	45,293	2,321	1,080	31.6	962	47.3	3,460	19.7	118.5
		1951	5,898	10,751	16,649	4.9	41,698	2,254	1,075	32.4	899	42.1	3,528	18.7	120.7
	Northern Pacific	1952	17,638	17,950	35,588	3.8	48,937	2,734	1,281	31.5	1,032	47.7	5,228	18.1	79.0
		1951	17,683	16,755	34,438	4.1	46,438	2,790	1,299	32.1	1,042	46.3	5,520	16.8	81.8
Southwestern Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1952	46,043	37,643	83,686	3.9	62,586	2,843	1,088	25.6	1,133	68.4	7,285	22.1	129.1
		1951	46,898	38,328	85,226	4.1	58,031	2,822	1,115	27.0	1,218	70.2	7,726	20.7	125.7
	Chic., Burl. & Quincy	1952	17,213	28,886	46,099	2.8	57,344	2,885	1,307	31.4	1,245	61.3	6,449	19.9	98.7
		1951	14,203	29,562	43,765	2.9	54,483	2,898	1,336	31.6	1,248	59.5	6,252	18.9	86.9
	Chic., Rock I. & Pac.	1952	13,332	22,787	36,119	3.7	51,579	2,780	1,208	30.5	1,056	54.1	4,837	18.6	137.5
		1951	10,229	25,670	35,899	3.6	47,482	2,632	1,172	32.3	1,117	55.0	5,114	18.1	126.8
	Denver & R. G. Wn.	1952	6,903	8,123	15,026	3.3	53,279	3,058	1,588	35.5	1,297	50.4	8,687	17.5	105.3
		1951	6,910	6,509	13,419	3.7	47,984	2,933	1,400	32.9	1,236	53.2	7,575	16.5	102.3
	Southern Pacific	1952	28,647	47,514	76,161	2.1	52,592	3,022	1,259	28.3	1,198	65.1	11,523	17.6	107.0
		1951	26,043	49,310	75,353	2.5	48,752	2,933	1,225	28.1	1,129	61.0	10,631	16.8	105.7
	Union Pacific	1952	28,730	39,231	67,961	2.3	62,206	2,675	1,165	28.9	1,646	83.2	11,377	23.5	137.5
		1951	26,851	40,312	67,163	2.0	60,450	2,837	1,236	29.9	1,654	84.7	11,321	21.6	130.9
	Western Pacific	1952	2,367	4,346	6,713	3.9	72,377	3,126	1,467	31.0	1,950	88.8	10,900	23.3	183.3
		1951	2,466	3,993	6,459	3.7	68,328	3,068	1,420	28.9	1,740	81.6	10,011	22.5	137.1
Central Western Region	International-Gt. Northern*	1952	913	8,039	8,952	1.8	57,056	2,782	1,277	35.1	874	37.7	6,854	20.6	98.2
		1951	690	6,830	7,520	1.8	52,301	2,606	1,167	35.8	976	42.1	6,727	20.2	113.7
	Kansas City Southern	1952	1,059	7,033	8,092	3.3	75,248	3,759	1,767	32.8	1,294	58.5	12,094	20.3	203.3
		1951	1,090	6,933	8,023	2.8	71,215	3,642	1,747	33.3	1,349	59.2	11,718	19.9	138.6
	Mo.-Kans.-Texas Lines	1952	3,643	7,276	10,919	5.6	52,547	2,549	1,060	27.1	1,274	72.8	4,371	20.6	139.2
		1951	2,920	7,682	10,602	6.3	48,174	2,377	1,043	28.7	1,416	74.7	4,552	20.3	128.9
	Missouri Pacific*	1952	18,516	16,689	35,205	3.0	56,528	2,678	1,215	30.7	1,396	68.0	7,335	21.2	117.2
		1951	15,473	18,789	34,262	2.5	53,197	2,641	1,212	32.4	1,562	73.1	7,598	20.3	119.9
	Texas & Pacific	1952	2,662	8,205	10,867	3.2	63,340	2,937	1,156	27.9	1,269	71.6	7,333	21.6	164.0
		1951	2,433	8,246	10,679	5.0	55,889	2,764	1,111	27.5	1,230	68.5	7,075	20.3	101.5
	St. Louis-San Francisco	1952	9,010	14,520	23,530	2.6	46,811	2,637	1,167	30.6	1,004	51.6	5,510	17.9	107.8
		1951	7,901	14,787	22,688	3.2	43,556	2,418	1,064	30.0	1,040	54.1	5,181	18.1	72.8
	St. Louis Southw. Lines	1952	1,826	4,977	6,803	1.8	55,383	2,666	1,192	27.2	1,795	91.1	8,494	20.8	141.6
		1951	1,759	5,171	6,930	1.8	50,316	2,654	1,186	27.1	1,822	89.3	8,282	19.0	107.2
	Texas & New Orleans	1952	5,119	17,456	22,575	2.5	49,057	2,571	1,130	30.7	1,254	63.4	6,890	19.2	120.0
		1951	4,330	17,608	21,938	2.7	45,973	2,495	1,114	30.4	1,243	60.9	6,695	18.6	103.1

*Report of trustee or trustees.

Compiled by the Bureau of Transport Economics, Interstate Commerce Commission. Subject to revision.

Looking for Ways to

Cut Building Costs?



✳ **Builders Report Savings of $10 per Square with Fir Plywood Siding-Sheathing**

YOU CAN side and sheath in one economical operation with PlyShield® grade Exterior fir plywood.

Builders report savings of $10 per square—and more—with these husky, attractive, easy-to-apply panels.

Fir plywood siding has extra strength and rigidity, eliminates the need for sheathing on many industrial and commercial buildings. Durable, too. Exterior plywood has 100% waterproof glue. Weatherproof. Easy to paint. Big panels cover large areas quickly, cut in-place cost to minimum.

It's today's best buy! Check your regular plywood source. For 1953 Basic Plywood Catalog, write Douglas Fir Plywood Association, Tacoma, Wash.

Douglas Fir Plywood

These Trademarks Identify Quality-Tested Fir Plywood

PLYSHIELD® is the versatile "one-side" grade of Exterior-type for siding, many other outside uses. Identified by Plyshield keystone on panel back, EXT-DFPA® on panel edge; 100% waterproof glue. Interior-type grades for inside use. Plastic-surfaced and hardboard-faced panels for special jobs.

EXTERIOR-TYPE Douglas Fir Plywood PLYSHIELD GRADE M-C DFPA INSPECTED EXT-DFPA

EXT-DFPA

THERE'S A TYPE AND GRADE FOR EVERY USE

Current Publications

FILMS

Journey to Yesterday. 28 min., 16-mm., sound, color. Prepared for the Denver & Rio Grande Western by Sonochrome Pictures, Inc., Denver, Colo. Available for suitable group showings through the D&RGW's public relations department, Denver 1. Free.

After taking its audience through the breathtaking gorge of the Rio de las Animas Perdidas aboard the Rio Grande's "Silverton"—Colorado's last narrow-gage passenger train—the film stops off "on location" during production of the recently-released feature film, "The Denver & Rio Grande." Much of the subsequent footage is devoted to showing how the Hollywood movie company shot railroad sequences of their production, with a spectacular head-on collision furnishing the climax. The journey aboard the "Silverton" from Durango to Silverton is then resumed, and the picture concludes with sequences showing modern main-line operations of the D&RGW in contrast to the anachronistic little "Silverton."

The film is excellent entertainment for both railroad and lay audiences and is likewise suitable for children's groups. The las Animas gorge sequences—taken under most difficult camera conditions—are outstanding. And so is the film's unusually clear sound track.

A Gray Day for O'Grady. 16-mm. sound motion picture or 35-mm. sound slidefilm. National Safety Council, 425 North Michigan ave., Chicago 11. Prices upon inquiry.

A new foreman learns, through a series of comedy situations, that it takes time and money to prevent accidents — but a lot more time and money to have them.

Pick Your Safety Target. Color cartoon in 16-mm. sound motion picture or 35-mm. sound slidefilm. National Safety Council, 425 North Michigan ave., Chicago 11. Prices, etc., on inquiry.

Based on actual accident-reduction plans within industry, these films suggest determination of: (1) Material or equipment involved in an accident; (2) action that resulted in the accident, and (3) details of the accident. From these facts, the film demonstrates how a definite accident pattern may emerge and how these patterns can become the basis for corrective action. The film is primarily for supervisory officers.

PERIODICAL ARTICLES

The U. S. Depot, a Portfolio by Walker Evans. Fortune, February 1953, pp. 138-143. Time, Inc., 9 Rockefeller Plaza, New York 20. Single copies, $1.25.

A collection of 10 interior and exterior views of old-time railroad stations.

Why It Pays to Tell Your Business History, by Herbert O. Brayer (Part 1) American Business, December 1952, pp. 18-19, et seq. Now You Have a Company History, What Are You Going to Do About It? (Part 2), January 1953, pp. 16-17, et seq. Dartnell Publications, Inc.,

Railway INSULMAT

The remarkably effective 3-PURPOSE COATING that saves Railroads Thousands of Dollars every year

- Deadens Sound
- Kills Vibration Noises
- Protects Metal against Rust and Corrosion
- Prevents Condensation Drip and Resulting Damage to Freight
- Prevents Saturation of all types of Insulation Products
- Used as a Ceiling Finish instead of Plywood—it costs less and is better

Applied with spray gun to ceilings and side walls of freight, passenger and refrigerator cars and cabooses.

Railway Insulmat being applied to the inverted ceiling of a California Zephyr car.

It will pay you to investigate this tried and true product—RAILWAY INSULMAT. Send for circular today.

J. W. MORTELL CO.
563 Burch St., Kankakee, Ill.
Technical Coatings since 1895

4660 Ravenswood ave., Chicago 40, Single copies, 35 cents.

Part 1 describes the nationwide trend toward publication of sound business histories by many corporations. Part 2 presents a basic working program for securing an outstanding study of a company's history and its contributions to society. Included in Part 1 is a selected list of business histories.

New "Keysort" Train Tickets Provide Traffic Figures. American Business, January 1953, page 32. Dartnell Publications, Inc., 4660 Ravenswood ave., Chicago 40. Single copies, 35 cents.

The Long Island recently introduced a new "on-train" ticket which company officials believe will furnish valuable traffic data on better passenger service. The ticket is a Keysort marginally punched duplicate set, manufactured by the McBee Company. Quick and easy sorts of tickets by branch and point of destination will be possible. Officers of the road expect the new ticket to furnish data by which to distribute equipment better, study flow of traffic, arrange schedules, and furnish accurate information for rate adjustment cases, both increases and decreases.

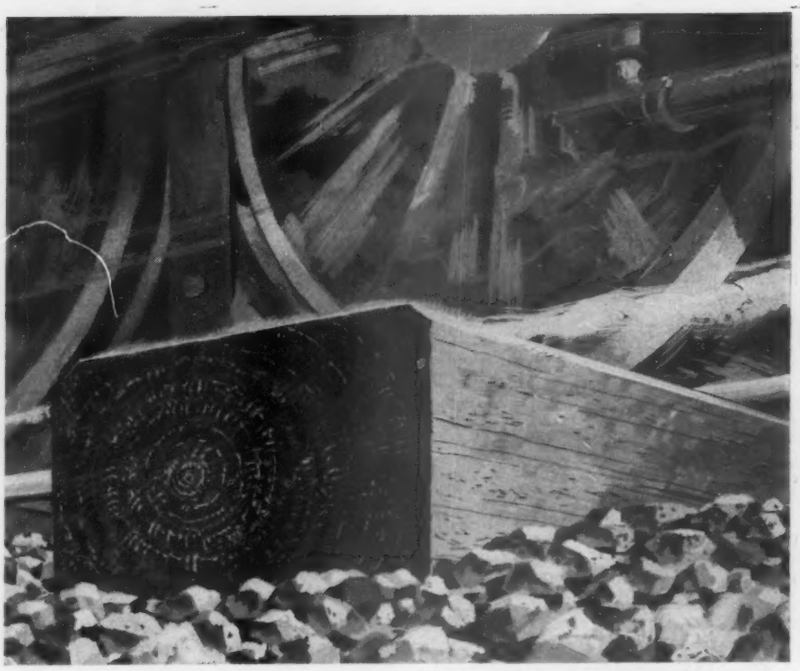
Working on the Levy. Tax Outlook, January 1953, pp. 2-5. Tax Foundation, Inc., 30 Rockefeller Plaza, New York 20.

The grandiose scheme of a federally financed "scenic and recreational" highway paralleling the Mississippi river for 2,000 miles, from the Great Lakes to the Gulf of Mexico, would, says the Tax Foundation, "cost taxpayers millions." Moreover, the article adds, it would be a "foot in the door" proposition, which, if approved, "might lead to additional spending for similar type roads in other sectors." The Mississippi Valley highway is the subject of several bills already introduced in the present Congress *(Railway Age,* February 2, page 17).

TEACHING AID

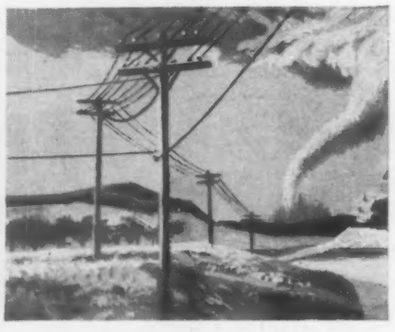
Freedom of Choice. General Mills, Inc., 400 Second Avenue South, Minneapolis 1, Minn. Free.

Because it is on the free choices of boys and girls that companies such as General Mills depend for a continuing favorable living and selling climate, it has made available to these boys and girls materials that will help them understand some of the basic principles upon which America's greatness depends. "Freedom of Choice" is a source unit designed to supplement social studies programs in intermediate grades. With it, teachers can emphasize the significance of freedom of choice in America. Because it is being offered only experimentally in the 1952-53 school year, supplies are limited. It is offered, without charge, to teachers who will use it as a classroom experiment and assist in the evaluation work. Each classroom set contains a Freedom of Choice illustrated booklet for each pupil, a guidebook for teachers, a "before" and "after" economics competency test for each pupil, a set of instructions explaining the experimental use of the unit, and a report form for recording test scores and briefly evaluating the unit.



on the land . . .

in the sea . . . in the air . . .



of all wood preservatives

ONLY COAL-TAR CREOSOTE HAS STOOD THE TEST OF TIME:

BE SURE IT'S BARRETT COAL-TAR CREOSOTE!

In all climates and in fresh and salt water, ties, poles and pilings pressure-treated with Coal-Tar Creosote have given long years of service to America's railroads. Used for over 100 years, Coal-Tar Creosote has stood the test of time. To be *sure* of quality, specify the brand that has stood the test of time, too: Barrett, long a leader in the field of Coal-Tar Chemicals.

Barrett®

BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Rector Street, New York 6, N. Y.

ARIZONA

Phoenix, Charlie C. Jones Battery & Elec. Co., 300-322 West Jefferson St.

CALIFORNIA

Los Angeles 21, Magneto Sales & Service Co., 751 Towne Avenue

Sacramento, Langner & Rifkin, 1116 Fifth Street

San Diego 1, Magneto Sales & Service Co., 1254 Kettner Blvd.

San Francisco 3, Furrer & Uster, Inc., 225—7th St.

San Francisco 3, H. G. Makelim Magneto Repair Co., 1583 Howard Street

Wilmington, Diesel Control Corporation, 218 North Marine Ave.

COLORADO

Denver 3, Central Supply Co., 1171 Lincoln Street

FLORIDA

Jacksonville 1, Spencer Electric Co., Inc., 40 West Beaver Street

Miami 36, Florida Diesel Service Co., 1930 North Miami Ave.

GEORGIA

Atlanta 3, Auto Electric & Magneto Co., 477 Spring Street, N. W.

ILLINOIS

Chicago 16, Illinois Auto Electric Co., 2011—37 Indiana Ave.

Rock Island, Lohse Automotive Service, Inc., 430 North Capitol Ave.

INDIANA

Indianapolis, Gulling Auto Electric, Inc., 450 North Capital Ave.

IOWA

Cedar Rapids, Edwards Carburetor & Electric Co., 209 Seventh St., S. E.

Des Moines 9, Electrical Service & Sales Co., 1313 Walnut Street

LOUISIANA

New Orleans 13, John M. Walton, Inc., 1050 Carondelet Street

Bossier City, Vaughan Tractor & Auto Parts Co., 605 West Street
Mail Address: P.O. Box 661, Shreveport, La.

MARYLAND

Baltimore 1, Parks & Hull Automotive Corp., 1033 Cathedral Street

MASSACHUSETTS

Boston 15, W. J. Connell Co., 121 Brookline Ave.

MICHIGAN

Detroit 2, Knorr-Maynard, Inc., 5743 Woodward Ave.

MINNESOTA

Minneapolis 6, Diesel Service Co., 2509 East Lake Street

Minneapolis 2, Reinhard Bros. Co., Inc., 11 South 9th Street

MISSOURI

Kansas City 8, Electrical & Magneto Service, Inc., 2538 Grand Avenue

St. Louis 23, Diesel Fuel Injection Service Co., 9331 South Broadway

NEBRASKA

Omaha 2, Carl A. Anderson, Inc., 16th and Jones St.

NEW JERSEY

Newark 2, Tire Trading Co., 239 Halsey Street

NEW YORK

Brooklyn 32, A & D Diesel Service, Inc., 145 21st St.

Brooklyn 16, E. A. Wildermuth, Inc., 1102 Atlantic Avenue

Buffalo 8, Hettrich Electric Service, 1032 Ellicott St.

Syracuse 4, F. A. Crossman, Inc., 943 Genesee St.

Troy, Ehrlich Electric Service, Inc., 200 Fourth St.

OHIO

Cleveland 14, Cleveland Ignition Co., 1301 Superior Ave., N. E.

OKLAHOMA

Tulsa 3, Magneto Ignition Co., 701 West 5th St.

OREGON

Portland 14, Automotive Products, Inc., 1700 Southeast Grand Ave.

PENNSYLVANIA

Hazelton, Penn Diesel Service Co., 27th & North Church Sts.

Philadelphia 32, J. W. Parkin, Jr., 2251 North Broad Street

Pittsburgh 13, Automotive Ignition Co., 6358 Penn Avenue

TENNESSEE

Memphis 4, Automotive Electric Service Co., 982 Linden Ave.

TEXAS

Dallas, Beard & Stone Electric Co., 3909 Live Oak Street

El Paso, Reynolds Battery & Magneto Co., 801 Myrtle Ave.

Houston 1, Beard & Stone Electric Co., Milam at Polk Street

Houston 11, Magneto & Diesel Injector Service, 6931 Navigation Blvd.

Odessa, Electric Service & Supply, 1601 North Grant Street

UTAH

Salt Lake City 2, Diesel Electric Service & Supply Co., 58 East 7th, South

VIRGINIA

Norfolk, Diesel Injection Sales & Service, 808 Union Street

Richmond 20, Charles H. Woodward Electric Co., 709 Broad Street

WASHINGTON

Seattle 1, Seattle Injector Co., 2706 Second Ave.

Seattle 14, Sunset Electric Co., 300 Westlake, North

Spokane 8, Sunset Electric Co., North 703 Division Street

WISCONSIN

Milwaukee 2, Wisconsin Magneto Co., 918 North Broadway

Canada

ALBERTA

Calgary, Hutton's, Ltd., 131—11th Avenue, West

BRITISH COLUMBIA

Vancouver, Magneto Sales & Service, Ltd., 126 Gore Avenue

QUEBEC

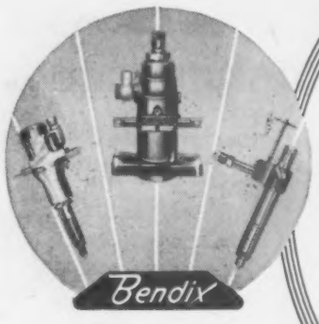
Montreal, International Electric Co., 1037 Bleury Street

Alaska

ALASKA, TERRITORY OF

Anchorage, Reeve Alaska Airmotive, Merrill Field, P.O. Box 1160

DIRECTORY OF SERVICE STATIONS IN U.S.A.



A NATION-WIDE *Authorized* SERVICE ORGANIZATION

Bendix

FUEL INJECTION EQUIPMENT

SCINTILLA MAGNETO DIVISION of Bendix AVIATION CORPORATION
SIDNEY, NEW YORK
Western Office: 582 Market Street, San Francisco 4, California • Export Sales: Bendix International Division, 72 Fifth Avenue, New York 11, N.Y.

$12.65 on the shelf... $32.45 in the line

Like most installations, a pipe line is part materials and part labor. And the labor part has been getting bigger and bigger.

This growing labor cost is no small consideration when buying piping equipment. It costs just as much to install an inferior valve as a good one. And it costs a lot more to service the inferior one. For a single item, that difference might not be significant. But single items don't make a piping system. Instead, you may use and have to maintain hundreds, even thousands of individual valves.

Simple arithmetic tells why today it's more important than ever to buy valves that last longer and need fewer repairs. That's why Crane quality makes Crane the line for the thrifty buyer... it's why more Crane Valves are in use than any other make.

Crane Co., *General Offices:* 836 S. Michigan Ave., Chicago 5, Ill. *Branches and Wholesalers Serving All Industrial Areas.*

CRANE

VALVES • FITTINGS • PIPE • PLUMBING • HEATING

use *genuine* BALDWIN DIESEL PARTS

BALDWIN DIESEL CYLINDER LINERS are typical of the "fine gem" quality of all Baldwin renewal parts. Porous chrome plating contributes to the remarkably long life of these liners. Users report longer wear, in some cases up to four times that of unplated liners.

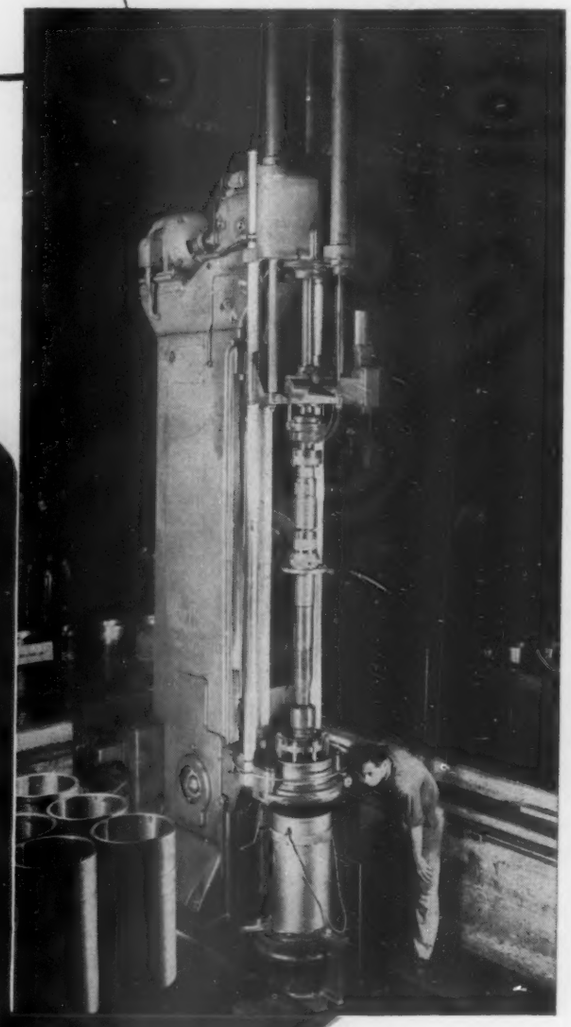
You can always rely on Baldwin's seven conveniently located warehouses to supply diesel replacement parts that will insure finer performance and longer, trouble-free service.

BALDWIN BLH LIMA-HAMILTON

BALDWIN

If they came in a Jewel Box — they couldn't be Finer!

Careful craftsmanship and the finest machine tools account for the unmatched quality of Baldwin parts. This honing operation gives Baldwin cylinder liners a smooth, long-wearing finish.



-LIMA-HAMILTON

DEPT. 7139, PHILADELPHIA 42, PA. • OFFICES IN PRINCIPAL CITIES

"... More than 50% of our employees are on the Payroll Savings Plan..."

PAUL W. JOHNSTON
President, Erie Railroad

"We on the Erie Railroad are extremely proud that 50% of our employees are on the Payroll Savings Plan for U.S. Defense Bonds. These thousands of employees are regularly providing for their own future security and at the same time contributing to the strength of our national defense. The American habit of thrift and regular purchase of U.S. Defense Bonds Shares in America are evidences of good, sound citizenship."

Good, sound citizenship . . . the American habit of thrift . . . a belief that a strong America is a secure America . . . a management that makes the Payroll Savings Plan available to *all* its employees—these are the reasons why more than 50% of Erie Railroad employees are enrolled in the Payroll Savings Plan.

For the same four reasons, more than 7,500,000 employed men and women in thousands of other companies are active members of the Payroll Savings Plan —their take-home savings in the form of U.S. Defense Bonds total more than $150,000,000 per month.

Is your company in the "more than 50% participation" group? If it isn't, please bring this page to the attention of your top executive. Point out to him—

Two Simple Steps to a Successful Payroll Savings Plan

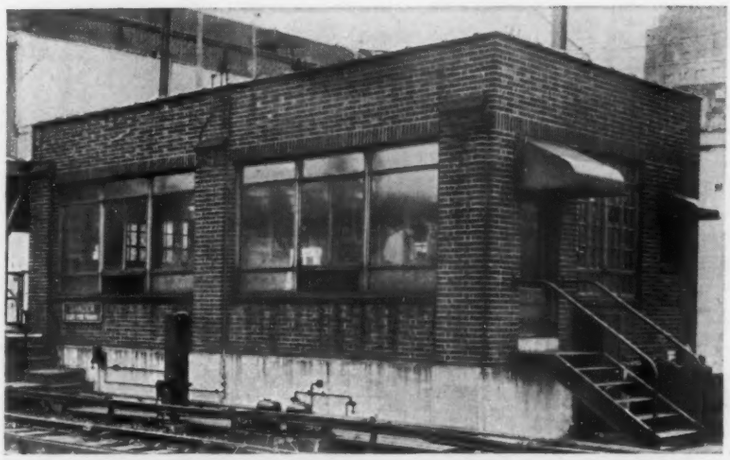
1. Phone, wire or write to Savings Bond Division, U.S. Treasury Department, Suite 700, Washington Building, Washington, D. C.
2. Your State Director, Savings Bond Division, will show your company how to conduct a simple person-to-person canvass that will put a Payroll Savings Application Blank in the hands of *every* employee.

That is all management has to do. Your employees will do the rest. They, like the employees of the Erie Railroad, want to provide for their personal security and at the same time do their part in helping to keep America strong.

The United States Government does not pay for this advertisement. It is donated by this publication in cooperation with the Advertising Council and the Magazine Publishers of America.

RAILWAY AGE

Years of service indicate the exceptional long life of Flamenol Railway Signal Cable



G-E engineer R. B. McKinley is examining some standard Flamenol signal cable that a western railroad used in an emergency to make an underwater river crossing. The temporary installation was never replaced—it performed perfectly for two years, until the line itself was abandoned. While non-armored Flamenol is not recommended as a submarine cable—this experience does illustrate the moisture resistance and excellent physical properties of Flamenol cable.

**Registered Trade-mark General Electric Company*

You can put your confidence in—

GENERAL ELECTRIC

Every test, every installation gives additional evidence of the exceptional long life of G-E Flamenol railway signal cable.*

For example:

15 years in a Philadelphia signal tower

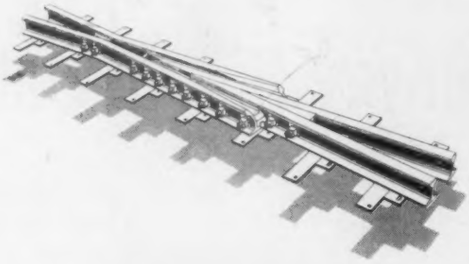
In 1937, the Philadelphia Transportation Company wired their 69th Street Tower "B" with Flamenol signal cable. In 1953, this same General Electric cable is still on the job — still delivering all of the service that the transit company hoped for originally.

Here is the Flamenol Cable that went on test on our roof in Bridgeport in 1938. Today it shows no sign of aging or deterioration after 14 years in the dust, acid smog, and other corrosive elements of an industrial location.

• • •

Long-lasting

Performances like these are to be expected of Flamenol cable. It is almost completely resistant to oils, acids, alkalies, moisture, ozone, and sunlight—will not support combustion. It is practically ageless whether installed indoors or outdoors — aerial or underground. Why not investigate? See your Construction Materials field representative or write Section W47-274, Construction Materials Division, General Electric Company, Bridgeport 2, Conn.



FROGS
Crossings — Switches

Your Railroad Track Material requirements tailor-made exactly to specifications.

NELSON IRON WORKS, backed by years of know-how in this highly specialized business, is a recognized leader in the field.

NELSON
IRON WORKS, INC.

45 SPOKANE STREET • SEATTLE, WASHINGTON

Lewis **sealtite**
hook bolt

A highly dependable, superior bolt used in bridge and trestle construction. Forged from S.A.E. 1045 steel. Patented fins prevent turning. Sealtite washer nut adds strength, stops seepage. *Available in Hot-Dip Galvanized finish for greater durability and economy.*

Used by 85% of America's Class I Railroads.

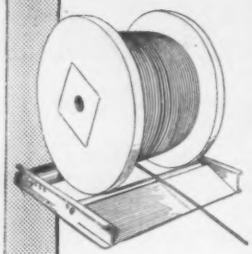
Also available with std. sq. and hex. nuts.

See your Lewis representative, or contact factory for samples, prices, full details.

Lewis BOLT & NUT COMPANY
504 Malcolm Ave. S. E.
MINNEAPOLIS 14, MINNESOTA

LOOK FOR THIS STAMP OF U QUALITY

Simple as A B C



Handle heavy reels easily and safely; remove wire or cable from top or bottom, front or back of reel with

ROLL-A-REEL

Low slanted front and positive front lock insure quick loading or unloading.

Eliminate jacks and cumbersome handling.

Style A: 2,000 lbs. cap. 37.50
Style B: 4,000 lbs. cap. 75.00
f.o.b. Cincinnati

Carried easily to reels, job or storage.
Sold through wholesalers only.

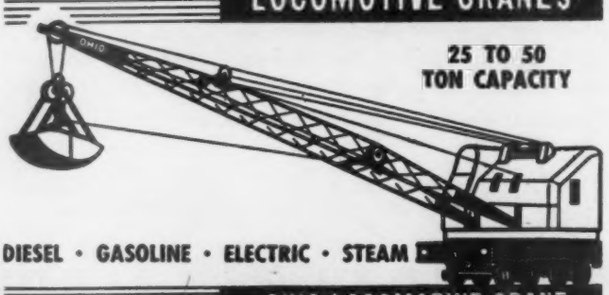
WRITE TODAY FOR DETAILS

ROLL-A-REEL
327 WEST FOURTH STREET
CINCINNATI 2, OHIO

STUCKI SIDE BEARINGS
All Rolled Steel
A. STUCKI CO.
Oliver Bldg., Pittsburgh, Pa.

Canadian Representative: The Holden Co. Ltd.
Montreal, Can.

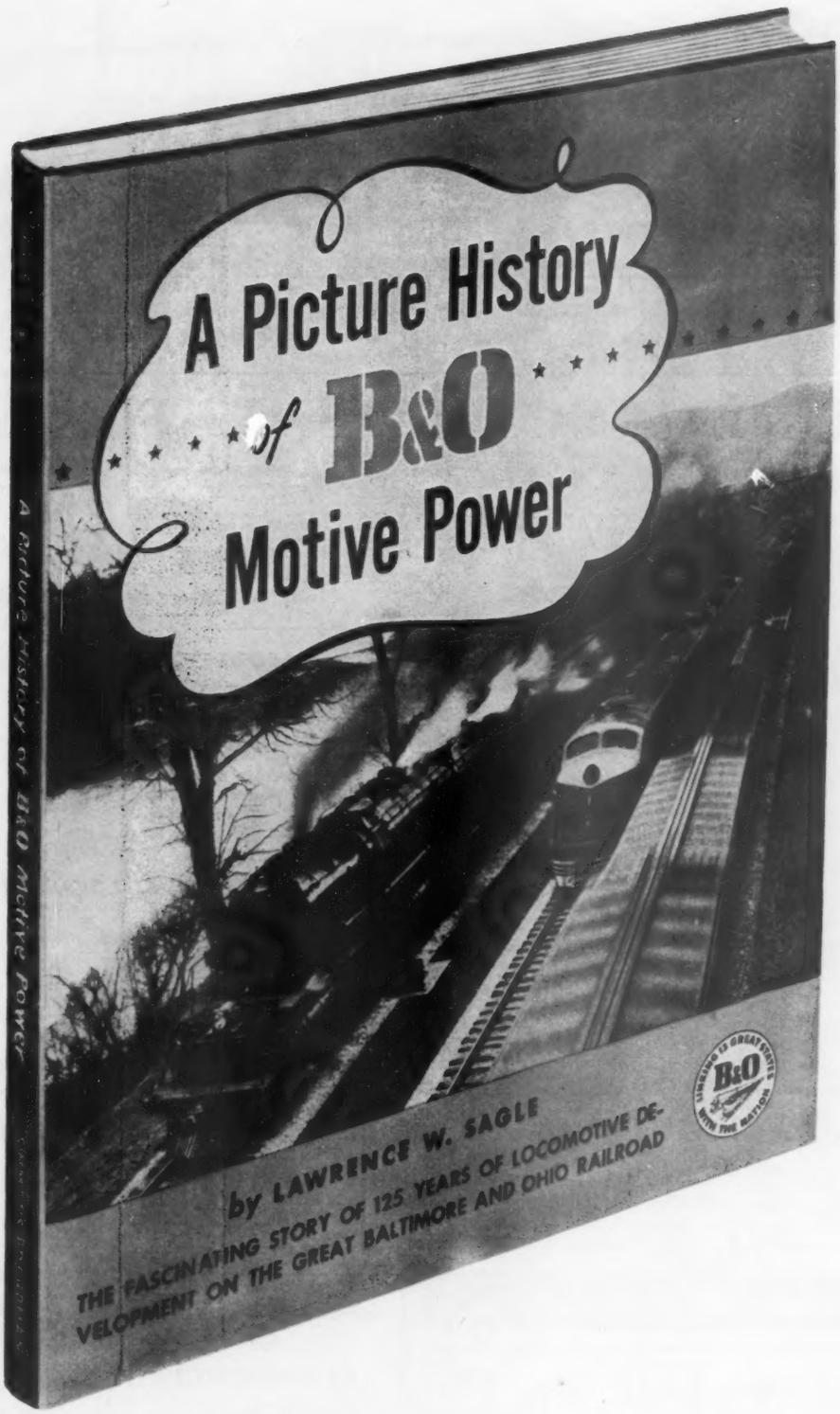
OHIO
LOCOMOTIVE CRANES



25 TO 50 TON CAPACITY

DIESEL • GASOLINE • ELECTRIC • STEAM

THE OHIO LOCOMOTIVE CRANE CO
BUCYRUS, OHIO


A Picture History of B&O Motive Power
by LAWRENCE W. SAGLE
THE FASCINATING STORY OF 125 YEARS OF LOCOMOTIVE DEVELOPMENT ON THE GREAT BALTIMORE AND OHIO RAILROAD
B&O
A Picture History of B&O Motive Power

We announce with pride the publication of A PICTURE HISTORY OF B&O MOTIVE POWER, the fascinating story of 125 years of locomotive development on the great Baltimore and Ohio Railroad. 82 pages. 135 photographs. Dark blue cloth binding stamped in gold. $3.75. Available from

30 Church St. SIMMONS-BOARDMAN BOOKS New York 7, N. Y.

Rates: $5.00 an inch (1" x 1⅝") per insertion; employment ads 10 cents a word, minimum $2.00. Add $1.00 for box address.

RAILROAD EQUIPMENT—*FOR SALE*

USED AS IS RECONDITIONED

STANDARD GAUGE FREIGHT CARS

Box—Double Sheathed, 50-Ton
Box, Single Sheathed, 50-Ton
Gondolas, Composite or All-Steel, 50-Ton
Hoppers, Twin, All-Steel, 50-Ton Cross Dump
Tank, 3,000-Gallon, High Pressure
Tank, 8,000-Gallon, Coiled and Non-Coiled

EXTRA LONG FLAT CARS

40- & 50-Ton Capacity, Length 70' and 74'

CABOOSE CARS

Eight Wheel, Cupola Type

STANDARD GAUGE AIR DUMP CARS

Side Dump, 20-Yd., 40-Ton, Lift Door
End Dump, 20-Yd., 50-Ton, Drop Door
Side Dump, 30-Yd., 50-Ton Drop Door

OTHER EQUIPMENT

Jordan Spreader, Built 1937
Locomotive Cranes
Overhead Cranes
Railroad Track Scales

STANDARD GAUGE DIESEL-ELECTRIC ROAD SWITCHING LOCOMOTIVE

300-H.P., 70-ton, Type 0-4-4-0

PASSENGER EQUIPMENT

Passenger Cars
Baggage Cars
4 All-Steel Dining Cars, Air-Conditioned

Send us your inquiries **We Buy Freight Cars for Dismantling** *Send us your offerings*

REPAIR PARTS For All Types of Freight Cars

IRON & STEEL PRODUCTS, INC.

GENERAL OFFICE
13486 S. Brainard Ave., Chicago 33, Illinois
Phone: BAyport 1-3456

NEW YORK OFFICE
50-c Church St., New York 7, N. Y.
Phone: BEekman 3-8230

"ANYTHING containing IRON or STEEL"

STORAGE TANKS
6,000 Gallon
8,000 Gallon
10,000 Gallon

NEW AND USED EQUIPMENT

FOR SALE

Fourteen 70-ft. all-steel flat cars.

Wood decking and A B brakes. One private railroad car with living room, dining room, 3 bedrooms, and kitchen. All cars in first class condition. Will pass interchange. Inspection can be made at our Chicago yard.

Erman-Howell Division

LURIA STEEL AND TRADING CORP.
332 South Michigan Avenue Chicago 4, Illinois
Phone WAbash 2-0250

Educational Services for RAILROAD MEN

Our New Service
on
Diesel Locomotive
Operation
is highly recommended
for
Engineers and Firemen

The Railway Educational Bureau
Omaha 2, Nebraska

POSITION WANTED

WANTED

Position in railroad sales. Three years' experience as sales representative in the railroad field plus three years service engineering. References. Chicago resident.

Box 253, RAILWAY AGE,
79 West Monroe St.,
Chicago 3, Ill.

CLASSIFIED DEPARTMENT

POSITION WANTED

Research Engineer, age 30 years, Master's & Doctor's degrees in Mechanical Engineering, 2 years as Engineer in charge of Railroad Heating & Airconditioning Research, 3 years as Asst. Director of Research, now migrating to U.S.A., seeks a suitable position. Address Box 669, RAILWAY AGE, 30 Church St., New York 7, N. Y.

FOR SALE

1—JORDAN STD. GA. R.R. SPREADER.
30 TON IND. GAS. LOCO. CRANE.
1—65 TON & 4—100 TON G.E. DIESEL ELECTRIC LOCOMOTIVES.
1—10 TON DAVENPORT & 1—20 TON WHITCOMB GAS LOCOMOTIVES.
40 TON IND. STEAM LOCO. CRANE.
10—12 YD. WESTERN DUMP CARS.

DARIEN,

60 E. 42nd St., New York 17, N.Y.

POSITION OPEN

Graduate Electrical Sales Engineer. Experience Railway Signaling and Electrification. Contacts with majority of engineers in this work. Desire position with company engaged in this field. Address Box 2353, RAILWAY AGE, 79 West Monroe St., Chicago 3, Illinois.

POSITION OPEN

The engineer for this job is about thirty years of age probably with experience in Valuation of A.F.E. departments. He is skilled at estimating cost of constructing or repairing railroad buildings and bridges. Ambitious man, meeting people easily, has good future in long established business in Chicago. Some travel. Please state qualifications. Box 216, RAILWAY AGE, 79 West Monroe St., Chicago 3, Illinois.

BARREL WASHER

Portco Automatic. Completes barrel in 5 minutes. Perfect condition. Price $500.

BRUCE MFG. CO.
6214 South 13th Street
Milwaukee 15, Wisconsin

BUY
BONDS

USED EQUIPMENT TO SELL?

ADVERTISE IT IN THE

"New and Used Equipment" Section of the Classified Department.

Shows Railroad Freight Capacities at a Glance!

U. S. RAILROADS MAP

Prepared by
PROFESSOR EDWARD L. ULLMAN
UNIVERSITY OF WASHINGTON

- CLASSES ROADS BY LOAD CAPACITIES
- SIZED 34x44 INCHES FOR WALL OR DESK USE
- PRINTED IN 3 COLORS, FOR EASY READING
- ACCURATE, COMPREHENSIVE, MODERN

A Unique Idea in Maps

You'll certainly want a copy of this remarkable map of U. S. railroads. Nothing like it has ever been devised. Prepared under the direction of Professor Edward L. Ullman, University of Washington, it combines the unique advantages of a map with the simplicity and information of a graph. It shows you U. S. railroads from an entirely different and important viewpoint.

Classifies Roads by Capacities

Consider the convenience of having reliable information of this sort instantly available. A glance at the map shows you all major U. S. railroads divided into these six classifications: three and four track roads, double track roads, single track roads with centralized traffic control, single track roads with automatic signal installations, other important single track roads, all other trackage. Electrification is also shown. In every case, carefully verified data were used. Thus, the map is not only the first of its kind, but also one of the most modern and accurate U. S. railroad maps available.

Size, Color Make Map Easy to Read

Nearly three feet high by four feet wide, the map is ideally suited for display and use on wall or desk. Trackage is shown in dark blue; railway names, state boundaries, and major cities in grey; water areas in light blue; and special symbols in red. The combination of size and three-color printing on white paper makes it simple for you to tell instantly the traffic potentialities of roads in any section of the United States. The research, the expert knowledge, the painstaking labor, and expensive production represented in this map make it an outstanding value at only $2.50. Once you experience the convenience of using it, you'll say it's the most useful map you've ever owned. Order yours today.

FREE EXAMINATION COUPON

Railway Age, Dept. 2-16-53
30 Church St., New York 7, N. Y.

Please send me for free examination a copy of U.S. RAILROADS MAP. If after 10 days I am not completely satisfied, I will return the map and owe nothing. Otherwise, I will remit the price of $2.50 plus a few cents for postage and handling.

Name .....

Street .....

City, State .....

Advertisers IN THIS ISSUE

The information contained in the advertising pages of Railway Age constitutes an important supplement to the editorial content of this paper. Refer to them for the latest advances in equipment, materials and supplies.

A

Air Reduction Sales Co. 29
Agency—G. M. Basford Company
American Car and Foundry Company ..19 to 22 incl.
Agency—Hicks & Griest, Inc.
American Locomotive Company 24, 25
Agency—G. M. Basford Company
American Steel Foundries 10
Agency—Erwin, Wasey and Company, Inc.
Armco Steel Corporation 28
Agency—N. W. Ayer & Son, Inc.

B

Bakelite Company 32
Agency—J. M. Mathes, Inc.
Baldwin-Lima-Hamilton 74, 75
Agency—Ketchum, MacLeod & Grove, Inc.
Barrett Division, Allied Chemical & Dye Corporation 71
Agency—McCann-Erickson, Inc.
Bendix Aviation Corporation, Scintilla Magneto Division 72
Agency—MacManus, John & Adams, Inc.
Bethlehem Steel Company 3
Agency—Jones & Brakeley, Inc.
Bruce Mfg. Co. 81

C

Cornell-Dubilier Electric Corporation 35
Agency—Friend, Reiss & McGlove Advertising
Crane Co. 73
Agency—The Buchen Company

D

Darien 81
Douglas Fir Plywood Association 70
Agency—The Condon Company

E

Electric Storage Battery Co., The ....Inside Back Cover
Agency—Geare-Marston, Inc.
Electro-Motive Division, General Motors Corp. .....Front Cover
Agency—Kudner Agency, Inc.

F

Fairbanks-Morse 64, 65
Agency—The Buchen Company

G

General Electric Company 24, 25, 27, 77
Agency—G. M. Basford Company

H

Hertz Driv-Ur-Self System 9
Agency—Campbell-Ewald Co., Inc.

I

Iron & Steel Products, Inc. 80

L

Lewis Bolt & Nut Co. 78
Agency—Ruthrauff & Ryan, Inc.
Luria Steel and Trading Corp. 80

M

Mortell Co., J. W. 70
Agency—Arthur C. Barnett, Advertising

N

Nelson Iron Works, Inc. 78
Agency—The Burke Company

O

Ohio Locomotive Crane Co., The 78
Agency—Coleman Todd & Assoc.

P

Peerless Equipment Company 30
Agency—George Bentley & Associates

R

Railway Educational Bureau, The 80
Railway Maintenance Corporation 26
Agency—Walker & Downing
Railway Truck Corporation 66
Remington Rand, Inc. 63
Agency—Leeford Advertising Agency, Inc.
Roll-A-Reel 78
Agency—Julian J. Behr Co.

S

Scintilla Magneto Division of Bendix Aviation Corporation 72
Agency—MacManus, John & Adams, Inc.
Scullin Steel Company 23
Agency—Batz-Hodgson-Neuwoehner Advertising Agency
Sherwin-Williams Co., The 34
Agency—Fuller & Smith & Ross, Inc.
Simmons-Boardman Publishing Corporation 76, 79, 81
Standard Oil Company (Indiana) 31
Agency—McCann-Erickson, Inc.
Stucki Co., A. 78
Superheater Company, The, Division of Combustion Engineering Superheater, Inc. 61
Agency—G. M. Basford Company

U

Union Switch and Signal 6
Agency—Batten, Barton, Durstine & Osborn, Inc.
Union Wire Rope Corporation 60
Agency—R. J. Potts-Calkin & Holden, Inc.
Unit Truck Corporation .....Inside Front Cover

V

Vanadium Corporation of America .....Back Cover
Agency—Hazard Advertising Company

W

Western Railroad Supply Company 36
Agency—L. H. Gross & Associates
Westinghouse Air Brake Company 4
Agency—Batten, Barton, Durstine & Osborn, Inc.

Y

Yale & Towne Manufacturing Co., The 67
Agency—Ruthrauff & Ryan, Inc.

STEEL *in stock at* **RYERSON**

Every kind of steel is in stock for quick shipment though many sizes are often missing due to the heavy demand. Joseph T. Ryerson & Son, Inc., Plants: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City, Pittsburgh, Los Angeles, San Francisco, Seattle, Spokane

BARS—carbon & alloy, hot rolled & cold finished
STRUCTURALS—channels, angles, beams, etc.
PLATES—sheared & U. M., Inland 4-Way Floor Plate
SHEETS—hot & cold rolled, many types and coatings
TUBING—boiler & mechanical, seamless & welded
STAINLESS—Allegheny plates, sheets, bars, tubes

Exide-Ironclad
BATTERIES

ARE YOUR BEST POWER BUY— AT ANY PRICE

They ASSURE high maneuverability of trucks . . . rapid, accurate handling of material. PROVIDE uniform rate of material handling with no unscheduled down time. SHOW lowest costs of operation, maintenance, repair, depreciation . . . inherently safe. Call in an Exide representative, and let him prove these facts.

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 2

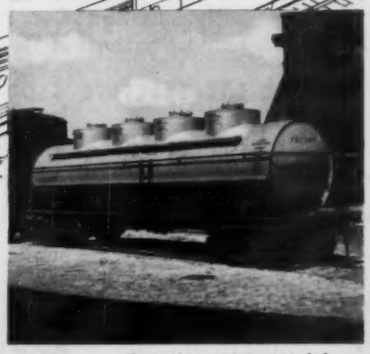
Exide Batteries of Canada, Limited, Toronto

"Exide-Ironclad" *Reg. Trade-mark U. S. Pat. Off.*

Here's why the railroads

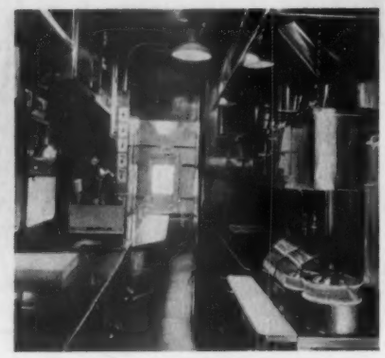
MAKE IT STAINLESS!

Strong, lightweight passenger cars with structural members and side paneling of stainless steel have made possible new speed, safety and economy.



Corrosion-resistant stainless steel tank cars, good for years of rugged service, facilitate shipment of foods, beverages and chemicals.

Bright, beautiful stainless steel trim and fixtures add new luxury to bar, dining and lounge cars.



Compact, easily cleaned stainless steel galleys help cut the cost of dining car operation, protect passenger health.

The great majority of steel's hundreds of applications in modern, high-speed trains demand one or all of three specific qualities: corrosion resistance, beauty and high strength.

That's why today, from locomotive to observation car, more and more railroads are saying, "*make it stainless.*"

Virtually indestructible by corrosive action, stainless steels defy the effects of air, water, food, fumes and chemicals. They can be machined, formed and fabricated—and their surfaces polished satin-smooth or mirror-bright. Grades of stainless are available to meet a wide range of mechanical and heat-resistant requirements.

Stainless steels are cutting operating and maintenance costs on an ever-growing number of railroads, bringing new beauty and safety to an ever-growing number of applications. For complete information contact your supplier.

The finest stainless steels are made with Vancoram ferro chromium, ferrochrome-silicon and ferro titanium.

VANADIUM CORPORATION OF AMERICA

Make it better...make it stainless!

VANCORAM BRAND

420 Lexington Avenue, New York 17, N.Y.

DETROIT • CHICAGO • CLEVELAND • PITTSBURGH

Producers of alloys, metals and chemicals

FOUNDED IN 1856